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Abstract

The Mauryan Horizon: An Archaeological Analysis of early Buddhism and the Mauryan Empire at Lumbini, Nepal

Jennifer Carrie Tremblay

The archaeology of Buddhism in South Asia is reliant on the art historical study of monumental remains, the identification of which is tied to the textual historical sources that dominate Buddhist scholarship. The development and spread of early Buddhism from the third century BCE has been intrinsically linked with the Mauryan Emperor Asoka, and is consequently reliant on the identification of 'Mauryan' remains in the archaeological record.

The aim of this thesis is to test the scholarly and physical evidence for the 'Mauryan horizon' that has shaped archaeological methodology in South Asia, by demonstrating challenges in the interpretation of the relationship between the Mauryan Empire and the spread of early Buddhism. The typical 'markers' of early Buddhism and Mauryan occupation are defined based on a historical study of South Asian archaeology, and the presence of these markers is tested at Lumbini, Nepal, using the 2011-2013 Durham University/UNESCO excavation data, and compared to published case studies representing a sample of site types across South Asia.

The results indicate a pattern of cultural, religious, and structural continuity through the so-called 'Mauryan Horizon', and analysis of Mauryan and Buddhist 'markers' proves that the use of these materials as indicators of either date or site type is flawed and unreliable. The continuations of practice and culture across the Mauryan horizon demonstrate flaws in the accepted account of Buddhism's state-sponsored propagation in South Asia by the Emperor Asoka in the third century BCE, and that archaeological investigations of early Buddhist sites below the 'brick horizon' are necessary. The collated evidence demonstrates the viability of Monica Smith's network model of Mauryan imperial infrastructure, but shows that alternative agents of Buddhist propagation should be considered. The conclusions highlight the methodological problems of unquestioning reliance on textual sources in archaeological and historical research in South Asia.

The Mauryan Horizon: An Archaeological Analysis of Early Buddhism and the Mauryan Empire at Lumbini, Nepal

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Submitted in accordance with the requirements for the degree of PhD

Department of Archaeology

Durham University

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Notes on Terminology

Due to the nature of the analysis and comparison of multiple sites and past investigations in this thesis, period and phasing labels used in the text are taken from the original publications, and have not been altered, except in the conversion of dating conventions such as BP, or BC/AD, to the use of Before Current Era (BCE) and Current Era (CE).

Radiocarbon and other calibrated dates are provided in their original format except for the conversion of BC/AD to BCE/CE. Dates and measurements have not been recalibrated in any way, and the original range of standard deviation measured as \pm radiocarbon years is reproduced in text.

For the purposes of consistency, standardised UK English spellings and transliterations of non-English words, names, or placenames are used, and diacritical marks have not been included in this thesis.

Abbreviations and acronyms have been provided with explanations where relevant in text.

Statement of Copyright

The copyright of this thesis rests with the author. No quotation from it should be published without the author's prior written consent and information derived from it should be acknowledged.

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Chapter 1: Introduction

'What the learned world demands of us in India is to be quite certain of our data, to place the monumental record before them exactly as it now exists, and to interpret it faithfully and literally' (James Prinsep 1838: 227).

1.1 Introduction

The archaeology of Buddhism in South Asia has been reliant on the architectural and art historical study of monumental remains which act as illustration for the textual sources that dominate Buddhist scholarship. The identification and typology of these monumental remains has been linked with the various successive territorial empires which have shaped the history of South Asia. The development and spread of early Buddhism from the third century BCE has been intrinsically linked with the Mauryan Empire, and more specifically the Emperor Asoka, and is consequently reliant on the identification of 'Mauryan' remains in the archaeological record. This thesis examines the link between religion and empire by focusing on the archaeological evidence that is used to identify both 'Mauryan' and 'Buddhist' in South Asia. This evidence is drawn from the recent excavations at the site of Lumbini in the Nepal Terai which forms the main case study of this thesis, and to a lesser extent from five other sites selected from across the Subcontinent which provide comparative data sets. The difficulties inherent in this approach include the reinterpretation of past excavations on the basis of limited published materials and diverse, and sometimes obscured, methodologies often with political and social agendas. Other difficulties relate to issues of inference and the visibility of early Buddhism in the material record, which can also be tied to the overarching challenge of the dominance of textual studies in archaeological scholarship in South Asia. This dominance has resulted in a broad focus on the role of imperial powers and authorities across the Subcontinent and throughout South Asian history and, in this case, can be related to the role of the Emperor Asoka in the spread of early Buddhism. Similarly, it should be noted that there is no universal 'archaeology of Buddhism' but in fact a number of archaeologies of Buddhism, following Insoll's argument for regionally diverse varieties of Islam as opposed to a super-regional and idealised Islamic cultural norm (1999: 10). Early Buddhism therefore needs to be studied regionally with regard to the diversity of material culture and interaction with other regional traditions which may alter the perception and practice of the religion.

The challenges in pursuing such broad and complex themes as religion and empire have been minimised in this thesis by focusing on a smaller scale of analysis. Whilst acknowledging the larger overarching literature on the nature of empires and the archaeological identification and visibility of religion, this thesis focuses specifically on the relationship between the identification of early Buddhism and the Mauryan Empire in the archaeological record at the site level. The recent archaeological investigations at the site of Lumbini have offered a unique opportunity to study this relationship, utilising the total material assemblage rather than relying on the edited and selected publication of material that is common in excavation reports. Lumbini provides an excellent case study for this analysis as it is one of the first Buddhist sites in South Asia to have been excavated to natural contexts rather than just to the earliest brick-built and presumed Mauryan phases of construction.

1.2 Research Context

Traditional archaeological methodology in South Asia has grown out of various antiquarian interests with a related focus on the translation of historic and religious texts, and subsequent interpretation of artefacts and monumental remains and ruins based almost solely on these texts. In spite of the development and introduction of scientific methodologies to global archaeology over the twentieth century, this situation is still largely unchanged in South Asia. Until very recently textual sources have been the primary source of interpretation for excavation data, rather than the objective analysis of monuments, assemblages and scientifically dated stratigraphic sequences. It is likely that this bias has affected the interpretation of the spread of early Buddhism, and the role of Asoka and the Mauryan Empire in this spread.

In a new wave of archaeological research, the recent work by scholars such as Coningham, Smith, Shaw, and Ray has challenged the narrative for the development and spread of Buddhism constructed by the texts, on the basis that it creates a static and homogenous picture (Coningham 1995; 1998; 2001; Trautmann and Sinopoli 2002). In the last 15 years, methodical and systematic excavation and survey at and around the site of Anuradhapura in Sri Lanka has provided archaeologists with the opportunity to compare the archaeological record with the historic record and, in these initial comparisons, several discrepancies have been noted (Coningham 1995; 1999). It is these discrepancies, and the methodological framework of the Anuradhapura project that have provided the basis for the recent research at the site of Lumbini in Nepal which forms the primary case study of this thesis. A similar approach has also been applied to the sites of Gotihawa in Nepal,

Piprahawa/Ganwaria and Kausambi in India, Taxila in Pakistan, and Anuradhapura itself in a re-evaluation of published material and existing reports (Figure 1.1)

The portrayal of Emperor Asoka and the Mauryan Empire throughout the twentieth century has been static and homogenous with Asoka as both monarch and monk presiding over a vast territorial Empire. In a recent re-evaluation of territorial empires, Monica Smith has suggested that the Mauryan Empire was not a centralised empire with bounded geographical dimensions, but a series of complex networks or spheres of influence—once again suggesting a more fluid and dynamic picture (Smith 2007). Smith's model of a complex but loosely knit Mauryan Empire is examined in this thesis, in order to compare the archaeological material from Lumbini with the textual narrative for both the development and spread of early Buddhism and the nature of the Mauryan Empire.

1.2.1 Archaeologies of Religion

It is the tendency of scholars to neglect or oversimplify the study of religion, often focusing on the archaeological identification of ritual in prehistory and furnishing proof of the textual narratives that are central to various world religions (Insoll 2004). Most of the archaeological literature on religion has been, as Insoll has noted, either too general or too focused on an idealised form of a single world religion such as Christianity. Most archaeological textbooks either neglect the subject of religion all together (See Greene and Moore 2010; Gamble 2001; Johnson 1999) or place it within the realm of cognitive archaeology (See Renfrew and Bahn 2012). Timothy Insoll has attempted to address the nature of the archaeology of religion and ritual in general, and how these relate to the archaeologies of individual world religions (1999; 2004; 2011). He argues for a post-processual approach, implying that religion cannot be separated from everyday life and should not be viewed as a separate category such as economics, technology, subsistence, social organisation, and death (2004: 23) (Figures 1.2 and 1.3). Religion, ritual, and cult can be of primary importance to the way in which all aspects of life are structured and as such the archaeology of religion requires a holistic approach (*ibid.*). However, this type of approach has not been applied to the archaeology of Buddhism which, similar to the study of other world religions, has been focused on a search for material proof of the textual narratives and histories. This search for 'proof' is consistent across almost all world religions, with biblical archaeology being conducted in the Middle East with obvious bias and agenda (Insoll 2001: 10-15). In post-Partition South Asia there was a focused campaign of excavation at sites mentioned in the great Hindu epics, the *Mahabharata* and *Ramayana* (Chakrabarti 1999; Johnson-Roehr 2008); and the late nineteenth and early twentieth-century focus

on discovering the sites associated with the life of the Buddha in India and Nepal (Coningham 2001). Insoll notes, however, that this need for archaeological proof has not extended to Islam, one reason being that “the truth is already revealed and material culture, and therefore archaeology, cannot confirm or deny the faith of believers” (1999: 231). Insoll’s *Archaeology of Islam* (1999) is one of the few works that has moved beyond an architectural and art historic approach in favour of a more holistic approach, attempting to identify the way that Islam structured the everyday lives of its adherents, by viewing Islam as a “uniform superstructure composed of fundamentals of belief, with a diverse substructure of practices, cultures, and their material manifestations” (1999: 1). In other words, a Muslim community should be recognisable in the archaeological record from the Atlantic to Central Asia, as “being a Muslim should generate certain types of material culture, specific to the faith, and reflecting its doctrines and its requirements of the believer” (ibid.). Insoll divides his analysis into six key aspects of Muslim society: the mosque; Muslim life, including food, education, health, pilgrimage, travel, and dress; art, trade, and ideas; death and burial; and the community environment, including cities and settlements (1999). Mark Horton utilised a similar approach in his excavation and interpretation of the Swahili port at Shanga, Kenya, on the East African Coast. Horton drew explicit connections between the repeated and continuous delineation of a central space in the early phases of the town with historical accounts of the temporary prayer platforms of Muslim soldiers overseas in order to identify the earliest phases of the main Friday mosque, as well as the growing influence of Islam on the architecture and material culture of the settlement (Horton 1991; 1996). Such a holistic analysis would be ideal for the study of Buddhism in the archaeological record, but unfortunately, there are a number of issues that make this approach difficult at the moment.

Similar to the past studies of Islam, the past and present archaeology of Buddhism is one-dimensional and, as will be shown in this thesis, archaeological evidence is very rarely used as anything more than illustration. As Insoll points out (1999), much of the new information that can be gained about the past practice of world religions such as Islam and Buddhism is from a study of the archaeological record. However, one of the main deterrents for the use of archaeological evidence by historians and other textual scholars is the lack of interpretation in excavation reports, making their appeal limited and requiring expert or insider knowledge (Insoll 1999: 4). The approach that Insoll has taken with his study of Islam, elucidating the more ephemeral aspects of religious life in the archaeological record, has certainly contributed to the understanding of the past practice of Islam and the way in which it structures the lives of its adherents. A similar study for the archaeology of early Buddhism would not be possible at present for many different reasons. In a recent paper on the propagation of early Buddhism, Julia Shaw points out that “there never was a ‘Buddhist period’ in Indian history. Not only did Buddhism grow out of, and function within a multi-religious context,

but being a monastic tradition, its ritual identity did not extend significantly, and certainly never exclusively, into the everyday lives of the laity” (2013: 88). The following chapters will demonstrate that the past and present archaeologies of Buddhism are entirely reliant on both textual sources and monumental remains. There is a movement towards examining the religious landscapes as a whole but, in most part, the archaeology or archaeologies of Buddhism are still in their infancy, and the tools to examine and understand the nature and spread of early Buddhism are not yet developed. It is first necessary to deconstruct and examine how scholars have been and still are identifying early Buddhism in the monumental and archaeological records, and perhaps more importantly, why these markers are being used. This thesis attempts to answer these questions and provide a trajectory for further study in the archaeology of early Buddhism.

1.2.2 The Life of the Buddha

As mentioned above, similar to other world religions, the archaeology of Buddhism has been preoccupied with the search for ‘proof’ of the textual sources and the life of the Buddha. Much of what is known about the life of the Shakyamuni Buddha is derived from the accounts of two Chinese pilgrims, Faxian and Xuanzang, who travelled to the Subcontinent in the fifth and seventh centuries CE respectively (Dutt 1962: 25; Coningham 2001: 63). Their sources included the Buddha’s *sutra-pitaka* (sermons) and the *vinaya-pitaka* (monastic rules) which were compiled after his death and verbally transmitted until at least the third century BCE, before and after which they were likely altered in the various schisms and the creation of new sects (ibid.). There is a general agreement, however, that the Buddha was indeed a historical figure and was born during the first half of the first millennium BCE to Suddhodana the *raja* of the Sakya clan. The traditional account of his life says that he lived for 80 years, however there is considerable disagreement over the question of when those 80 years began and ended, with some traditions believing that the Buddha died in 544 BCE and others placing his death as late as 380 BCE (Lopez and McCracken 2014: 15). Regardless of the timeline, there are several key events in the narrative of the life of the Buddha that are agreed upon. He was born in the Garden of Lumbini (in present-day Nepal) as his mother, Queen Maya Devi, travelled from her husband’s capital at Kapilavastu to her father’s capital at Devadaha. According to this narrative Siddhartha Gautama who later became known as the Buddha or ‘enlightened one’ emerged from his mother’s right side without causing any pain and was caught on a golden net by four gods (ibid.) (Figure 1.4).

Following prophecies about his life as a renounceant or conqueror, Siddhartha's parents feared that he would renounce his princely inheritance and attempted to divert him with worldly pleasures. At the age of 29, however, he encountered four sights which revealed the transience of existence. These consisted of an old man, an ill man, a dead man, and an ascetic who had rejected worldly wealth. Abandoning his wife, child, family, and kingdom, he set out to seek enlightenment and free himself from the cycle of rebirth. Leaving the city he shaved his head, donned the simple dress of an ascetic, and sent his horse and groom back with his regalia as symbols of his *Mahabhinishkramana*, or 'Great Departure' (Beal 1869: 120; Coningham 2001: 64). Unsatisfied with formal spiritual teaching, Siddhartha travelled to Bodh Gaya in present-day India, adopting a strict regime of meditation and austerity which attracted followers but reduced him to a skeletal state (Figure 1.5). When even this harsh regime failed to lead to enlightenment, Siddhartha broke his fast and his disciples deserted him. Shortly afterward he sat under a pipal tree and committed himself to death or enlightenment. Here, at the age of 33, Siddhartha achieved the state of *Buddha* or 'enlightened one' (ibid.). He then travelled to the deer park of Sarnath, where he offered his former disciples his teachings or *dharma*. This laid out the Four Noble Truths: that all beings were linked to the cycle of rebirth through suffering; that suffering was linked to unsatisfied desires; that the only way to detach oneself was to remove the causes of suffering; and that the only way to do this was by following the Eightfold Path. This Eightfold Path consists of right views; right value; right speech; right actions; right livelihood; right effort; right mindfulness; and right concentration.

This exposition is known as the *dharma-chakra-pravartana* or 'setting the wheel of law in motion', and the conversion of his former disciples marked the formation of the *Sangha*, or 'order' of monks (Coningham 2001: 64). At the age of 79, the Buddha underwent his *mahaparanirvana* or 'Great Passing Away', achieving *nirvana* or 'the release from the cycle of rebirth'. His body was cremated and his ashes divided into eight portions and distributed to the eight ruling clans. The cremation urn was retained by the Brahmin who divided the portions, and the cinders provided to another clan. These relics of the Buddha's physical existence were preserved, and ten mounds, or *stupas*, were built over them (ibid.).

1.2.3 Asoka and the Propagation of Buddhism

There are numerous accounts regarding the Maurya's rise to power in South Asia, but it is generally accepted that the first Mauryan ruler, Chandragupta Maurya, came to power in the state of

Magadha in the Ganga Plain in the fourth century BCE (Thapar 1997: 13; Sughandi 2003: 224). His expanding empire was passed on to his son, Bindusara, who then extended the empire out of the Ganga Plain and took control of most of modern India with the exception of the eastern state of Kalinga and the southern peninsula (ibid.). However, it was under Bindusara's son in the third century BCE that the Empire reached its maximum extent, conquering the kingdom of Kalinga. It was during this violent conquest of Kalinga that the Emperor Asoka was overcome by all of the suffering and destruction that he had caused and became devoted to Buddhism, putting aside an imperial conquest through violence and military action and instead turning to an ideological conquest through the spread of *dhamma* (Sughandi 2003: 225). The rock and pillar edicts scattered throughout the Subcontinent are seen as a testament to Asoka's devotion as a Buddhist as well as the success of his ideological conquest and rule of the Mauryan Empire (Figure 1.6). Within this narrative, derived from Buddhist sources, Asoka is also credited with the construction of 84,000 *stupas* across South Asia and the development and spread of early Buddhism throughout and outside the Subcontinent (Legge 1886).

1.2.4 The Birthplace of the Buddha, Lumbini

When the Buddha was approaching his *Mahaparinirvana*, he advised his followers that there were four great places of pilgrimage associated with his life: Lumbini, where he was born; Bodh Gaya, where he achieved enlightenment; Sarnath, where he first taught the *dharma*; and Kushinagara, where he achieved his *Mahaparinirvana* or great passing (Beal 1869: 126). From that time, Lumbini became an important pilgrimage site for early Buddhists as reflected by Asoka's own pilgrimage in 249 CE, marked as it was with an inscribed pillar. It is also clear that the appeal of the site stretched beyond South Asia as exemplified by the pilgrimage of numerous Chinese monks; the two most famous being Faxian in the fifth century CE and Xuanzang in the seventh century CE, whose accounts were later used by antiquarians in the nineteenth century in an attempt to locate the site (Coningham and Tremblay 2013: 63). Asoka's pillar also displays the fourteenth century CE graffiti of Prince Ripu Malla, demonstrating that Lumbini remained a key site into the medieval period. Indeed, the various stages of construction that will be discussed in Chapters Four of this thesis are proof that the site remained an important place of pilgrimage from at least the Mauryan period onwards with multiple phases of building and remodelling. However, it is also clear that between the pilgrimage of Ripu Malla and Lumbini's re-identification in 1896, detailed knowledge of the site was lost (ibid.).

1.2.5 Archaeologies of Empire

Like many of the archaeologies of religion described by Insoll, the archaeologies of 'empire' have proved a complex set of issues and arguments. The notion of empire in Western scholarship has been tied to our perspective of the Roman Empire, based on a heavy emphasis on textual narratives and the ever present archaeological remains, and even the word itself is derived from the Latin *imperium*, with accompanying historical associations (Morrison 2001: 2). An empire may be generally described as a collection of multiple states ruled under a single polity. As Morrison (2001), Yoffee (2004) and others have noted, the development of social theory throughout the twentieth century means that it is now accepted that these states may be capable of exhibiting considerable cultural and social diversity even within the polity of the empire. This is in contrast to the traditional models that limit the interpretation of empire to the rigid and largely Roman-based models. Yoffee has highlighted the subsequent intertwining of traditional definitions of state and civilisation which have prevented significant reinterpretation, but notes that these links must be severed in order to allow for the possibility of multiple states within a single civilisation (Yoffee 2004: 17). This argument can also be extended to the traditional model of imperial territoriality which has shaped the debate on the administration of empire, but which can now be considered as merely a broad type alongside various other forms of dominion, bureaucracy, and non-territorial networks of power.

Acknowledgment of this point is followed by the acceptance of temporal variation. D'Altroy has noted that regardless of ideas of territoriality or networked administration "the outstanding feature of pre-industrial empires was the continually metamorphosing nature of relations between the central powers and the societies under the imperial aegis" (D'Altroy 2001: 125). Discussion of empires is occasionally limited by an emphasis on the system of control ascribed to a particular dynasty, without sufficient acknowledgement of the potential for change in governance, let alone regional variation in control or agency at any given time. These are also factors not necessarily dictated by the figurehead of authority, but by wider contextual social, religious, climactic, and landscape conditions which may not be reported in textual sources, or have been previously identified in the archaeological record. Although this thesis will deal with questions of the administrative structure and control of the Mauryan Empire, it is important to emphasise that this is not intended to represent a holistic assessment of the whole empire as that would be a thesis in itself, but a focused study of the relationship between the empire, the spread and material evidence of early Buddhism, and the archaeology of the main case study site of Lumbini.

A number of models of Mauryan authority were put forward in the twentieth century and this section will provide some context for the discussion of these by reviewing recent discussions of

other empires and systems of administration. Three of the main themes which will be reiterated in this section for consideration in this thesis are the reliance on or deferral to textual sources in the interpretation of empires, the variety of regional systems of control, and evidence of local cultural continuation in spite of imperial control.

Textual Sources and Archaeological Reconstruction

A number of authors have discussed the challenges of relying on textual sources for descriptions of imperial authority and power with reference to the Achaemenid rulers. The Persian Achaemenid Empire (c. 550 – c. 330 BCE) was centred in Fars, in modern Iran, and in its early period was the largest empire known without contemporary neighbouring competition. The Empire was widely documented, both internally and by Greek and later Roman historians. Magee and Petrie (2010) have argued that the inscriptions and records left by the Achaemenid Empire itself must be viewed with caution, noting the propagandistic nature of the documents, and considerable variation between the texts and the archaeological record. Kuhrt (2001) has similarly highlighted the role of subjective interpretation in the portrayal of the Empire, its rulers, and particularly the apparent corruption and decadence of its later period. This, she argues, is due more to the bias of historians accompanying Alexander of Macedonia, equally fascinated and horrified by the Persian ‘other’ and the scale of imperial wealth and power than to an objective account of the society or its governance. Later Roman historians exacerbated these subjective accounts and much later European Orientalism has highlighted the comparatively masculine ‘Western’ traits of the Greeks and Macedonians in these narratives against the alien and often effeminate portrayal of the ‘Eastern’ Persians which is still visible in popular works today (Kurt 2001: 97). A similar treatment, though inverted, can be made for the narrative accounts and portrayal of the Emperor Asoka as the propagator of Buddhism, recorded in the centuries after his reign by various authors with differing justifications and which were picked up and emphasised in the nineteenth century by European Orientalists keen to raise the profile of Buddhism to the detriment of Brahmanism (Trautmann and Sinopoli 2002).

In terms of reconstructing the political and administrative organisation of the Achaemenid Empire, Kuhrt (2001) notes a recurring reliance on the ‘problematic’ Greek histories and a lack of alternative sources, particularly regarding the early period of the Empire (ibid.: 102). Sughandi has pointed out the challenges that come with attempting to replace one social theory with another without sufficient evidence, and emphasises that it is “difficult, if not impossible, to determine the physical geography of an imperial polity based solely on ideological claims” (Sughandi 2003: 226).

Furthermore, Chaverdi et al. (2010) have noted issues with regard to the locations of sites named within textual sources, and the differing interpretations of passages, toponyms, and routeways, even with regard to major sites of inter-regional significance (2010: 287). These problems have been compounded by a lack of systematic archaeological survey outside key urban or military regions of the Achaemenid Empire which might be used to counter the evidence of the texts (Magee and Petrie 2010).

The limited dataset available for the Achaemenid Empire has made reconstruction of authority and regional control infrastructure difficult and can be compared to the limited materials available for the study of the Mauryan Empire. As will be discussed in Chapter Two, some of the most important sources of information regarding the administration of the Mauryan Empire were written in the centuries after the Mauryan period in the early first millennium CE or by geographers and historians from outside the empire likely to exhibit bias either as a result of their unfamiliarity with the daily business of the empire, or simply by virtue of a subjective outsider's perspective.

Rise of States and Empires

In order to contextualise the growing debate on the role of religion within imperial systems of administration in South Asia, it is useful to review the theoretical basis of existing social and imperial models. Neo-evolutionary theory posits the rise of states and empires from chiefdoms through a series of holistic changes in which all facets of society are altered in a single event (Yoffee 2004). The segregation of different stages creates at best a simplistic classificatory system of types of society and at worst a hierarchical chain of social development, without sufficient account given to the possibility of differing social trajectories (ibid.). It is worth consideration that even as a system of classification, the definitions of each stage must be sufficiently broad to be applied to any given region as to make the instigating event of each 'stage' almost arbitrary.

Yoffee has argued that the earliest states are likely to have contained a centralised polity with a clear, individual system of leadership and personnel, but which also included members of different groups and social structures (Yoffee 2004: 34). By using a micro-historical focus, Yoffee has explored the contradictions of normative systems, and of the overlapping networks of social and economic power which shaped and were shaped by social structures in Mesopotamian society, with particular regard to the role of belief systems and the role of women in society (Yoffee 2004: 115). On the subject of the rise of states Yoffee follows Service (1975) in arguing that chiefly authority is often associated with religious authority, and notes the dual role of theocratic priest-chief in what may

broadly be defined as 'chiefdoms'. Yoffee argues that the combining of real and symbolic power through religion represents a deliberate crafting of ideology in order to wield the kind of authority necessary for state formation. It could be argued that the grand narrative of Asoka as warrior monk equated to a similar cult of authority propagandising.

Yoffee states that the development of social systems and in particular the rise of states and empires is reliant upon the potential and real ability of an authority to apply power in order to accomplish specific tasks. The strength of an authority is in the ability to engage and communicate its power in spite of, and even through this regional variation, implying that this may occur either through local structures or in spite of them by force (Yoffee 2004: 34). This strength does not necessitate repressive or totalitarian control, but allows for alternative forms of authority, and also for considerable variation in the method of political power and level of control within a broad definition of 'state', as well as economic and social variability across a state. Since this regional variability was apparent in daily social practice, "local acts such as those that did not challenge the sovereignty of centralised power also provided support for it" (ibid.: 34). Yoffee has dismissed the notion of neo-evolutionary social shift by noting the lack of a holistic cultural change at the point of social collapse, and it can be inferred from this and his argument regarding imperial tolerance of local practice that the material culture of a given society may exhibit as much variability as the social forms and practices which defined it. A similar argument can be seen in both Romila Thapar and Monica Smith's models of Mauryan authority, which will be discussed in detail later in this thesis, in which the material culture of the lay and non-elite even in regions of relatively tight Imperial control are unlikely to have been significantly altered by the rise of the Mauryan state.

Unfortunately, the development of social theory and its application to specific examples of empire remain in many cases separate from what Chaverdi et al. (2010) refers to as 'archaeological substantiation'. They note that the sheer size of an empire creates problems for the use of systematic archaeological survey, and that since investigation generally occurs in areas of known sites and established archaeological sequences, the archaeology of the regions between sites remains largely unknown. The survey of off-site areas and hinterlands is becoming more feasible with the widespread availability of digital mapping technology and commercial satellite imagery. For example, in studying the Sasanian Empire, the ongoing survey of large agricultural areas as well as military installations and waystations on both sides of the Gorgan Wall as part of the Persia Project at Durham University has demonstrated that in spite of textual and historical sources attesting to the boundaries of the Sasanian Empire, agriculture and trade continued on both sides of the Gorgan Wall in northern Iran. Significant regional styles of ceramics were also noted in this northern region,

compared to other regions of the Sasanian Empire (Rekavandi et al. 2008; Sauer et al. 2013). Similarly Magee and Petrie's excavations at an Achaemenid site in western Pakistan have demonstrated that the variation in assemblages between sites even in a relatively modest region means that no single site can be used to represent or construct a regional assemblage. This leads to a methodological problem however, since if single-site survey cannot be relied upon to construct representative archaeological assemblages, but inter-regional survey is made difficult by the problems of scale and terrain, how should archaeologists recognise and identify the material culture, let alone spatial or temporal variations of an empire? Furthermore, if it is accepted that an empire may allow for regional variety, it must also be accepted that the traditional concept of territoriality as proposed by Lattimore (1962) is not a given, leading to a consideration of alternative means of administration, and of their development. Michael E. Smith has acknowledged these issues in his examination of the Aztec Empire, and notes that the reliance on textual sources in the discussion of empires in general has created particular problems for the study of pre-literate and non-literate empires, or the administration of those polities prior to contact with literate civilisations (Smith 2001). Smith has attempted to deal with the problem by applying Michael Doyle's theoretical model of a metropolitan empire to the archaeological example of the Aztec civilisation, with allowance for issues of inference and archaeological visibility (Smith 2001: 131). Smith also notes the previous work of Berdan et al. (1996) which described the importance of a solid market economy as a primary reason for the establishment of the Aztec Empire, alongside and in conjunction with an emphasis on subject tribute from imperial provinces and territories. The balance of these factors enabled the continued dominance of the Empire over potential rival city-states. Smith's own work attempted to draw distinctions between evidence of economic activity which might be expected within the Aztec Empire, and transnational trade as part of the inter-connected Mesoamerican world-system, and he concludes that the fluid movement of both common and elite items amongst the entire populace of the Empire contradicts traditional emphasis on the importance of 'luxury' items in the Aztec economy. With regard to regional variations, Smith notes the use of the introduction of imported ceramics into site sequences as an indicator of Aztec conquest, but also notes the continuation with slow decline of local styles alongside 'imperial' styles. Smith tempers this with the observation that decline in local ceramics is not merely a representative ratio, but can be measured quantitatively and is accompanied by a similar decline in the number of imported ceramics, indicating that Aztec conquest and subsequent imperial rule brought with it a decline in population and local wealth. The reasons for this are currently unknown and Smith notes the need for further archaeological research to counter the limited datasets, assemblages, and poor chronologies currently available before these processes can be explained (Smith 2001). Monica Smith (2006: 6) has pointed out that

archaeologists are sometimes accused of being ‘particularists’, focusing on potsherds to the detriment of ‘larger’ social issues, but Michael Smith’s analysis aptly highlights the dangers of putting theory before evidence, and of ignoring the detail of the archaeological remains when discussing wider contextual social trends.

Problems with identifying and distinguishing between local and ‘imperial’ assemblages are widespread, but not always widely acknowledged, and are further hampered by limiting definitions of both spatially or temporally homogenous polities and civilisations, which in literate societies have been based on biased records and reports of empire. These problems have in turn stifled the investigation of modes of imperial administration and authority. These issues are particularly visible in the past study of the Mauryan Empire, which as recent systematic archaeological study has shown is not yet well understood. This point will be taken up in the consideration of the models of network control put forward by Romila Thapar and Monica Smith with regard to the Mauryan Empire, and the regional variation of material culture and continuity will be of relevance to the discussion of Mauryan material culture in later chapters.

1.3 Aims and Objectives

The aim of this thesis is to test the scholarly and physical evidence for the ‘Mauryan horizon’ that has shaped archaeological methodology in South Asia, by demonstrating challenges in the interpretation of the relationship between the Mauryan Empire and the spread of early Buddhism.

The ‘Mauryan horizon’ is a conceptual boundary represented in scholarship by what is assumed to be Mauryan period brick-built architecture, which marks the limit of excavation at Buddhist sites. The preservation of this architectural horizon has resulted in a lack of archaeological investigation into the development of early Buddhism. This state of affairs has been shaped by the primacy of monumentality and conservation in South Asian historical studies. The horizon is re-enforced by the textual sources, edicts and pillars which identify the Mauryan emperor Asoka as the central figure in the development and spread of early Buddhism and the construction of monumental Buddhist architecture. This thesis will demonstrate the methodological challenges of unquestioning reliance on textual sources in archaeological/historical research, and highlight the effects of this flawed methodology on interpretation. In order to achieve this aim the following objectives have been devised:

Objective One: to review the existing literature and identify the key themes and trends in the history of Buddhist textual scholarship and the archaeology of Buddhism, highlighting the intrinsic link between the two sources.

Objective Two: having established the primacy of the textual sources in the archaeology of Buddhism, to review the way in which Asoka and the Mauryan Empire have been portrayed as the propagators of Buddhism in the textual sources and studies from the past century, and explore alternative perspectives such as Romila Thapar's metropolitan state model (2000; 2012) and Monica's Smith's networks model (2005; 2007).

Objective Three: having reviewed the history of Buddhist textual and archaeological research and the implications for subsequent interpretation, to identify the typical archaeological markers of Buddhism and the Mauryan Empire.

Objective Four: having defined the typical archaeological 'markers' used to identify both Buddhism and the Mauryan Empire, to compare these anticipated markers with the archaeological evidence from Lumbini.

Objective Five: having explored the discrepancies between the archaeological evidence from Lumbini and the anticipated markers of Buddhism and the Mauryan Empire, to compare these markers against archaeological data from other sites in South Asia, specifically Gotihawa, Piprahawa/Ganwaria, Kausambi, Taxila, and Anuradhapura, in order to determine the existence or otherwise of a 'Mauryan Horizon'.

Objective Six: having tested the 'markers' of Buddhism and the Mauryan Empire against a range of sites, to determine whether or not the evidence supports the models of the Mauryan Empire proposed by Thapar and Smith, and to evaluate these models.

1.4 Chapter Breakdown

This chapter has provided an outline of both the life of the Buddha and the narrative of its subsequent development and spread by the Mauryan Emperor Asoka in the third century BCE. This relationship between the Mauryan Empire and the propagation of early Buddhism will form the basis for this thesis.

Chapter Two of this thesis will review the history of both Buddhist scholarship in Europe and the archaeology of Buddhism, highlighting three key topics of interest to this thesis: the way in which textual sources have become central to the study of Buddhism, and archaeology a prop to legitimise these textual sources (Coningham 1995; 1998; 2001; Trautmann and Sinopoli 2002); the focus on the monumental remains in the archaeological record; and the central role of the Emperor Asoka and the Mauryan Empire in the development and spread of early Buddhism. This study of the history of the discipline fulfils Objective One, and will aid in the later deconstruction of current archaeological methodologies and subsequent interpretations. It will also relate to Objective Two, introducing the central role of Asoka in the spread of early Buddhism espoused by the textual narratives and by archaeological interpretation based on these narratives. The themes outlined in this Chapter will be returned to on numerous occasions in the following chapters, and represent the origin of some of the past methodological flaws which will be addressed by this thesis.

Chapter Three presents the methodology for this thesis and identifies the key points of archaeological data which will be examined. The chapter will help to fulfil Objective Two by exploring alternative models of imperial authority and interpretation which have been proposed by scholars such as Fussman (1982; 1988), Thapar (2001; 2012), and Smith (2005; 2007). It will also fulfil Objective Three by defining the typical archaeological markers of early Buddhism and Mauryan occupation which have been identified through the assessment of published excavation reports on South Asian sites, and discuss some of the problems in using and relying upon these markers. The chapter will also review the history of excavation at the main case study site of Lumbini, and compare the methodologies of these excavations to the 2011-2013 UNESCO/Durham excavations, and the analysis of the ceramic and artefactual assemblages developed for this thesis from the site. This analysis will form the basis for comparison of the site of Lumbini to other case study sites, and it is crucial to explain the methodology which has been used for the analysis of the artefacts, as well as the basis and rationale for comparison.

Having defined the typical archaeological 'markers' used to identify both Buddhism and the Mauryan Empire, Chapters Four and Five will compare these anticipated markers with the archaeological evidence from Lumbini. Chapter Four will present the actual archaeological data collated from previous published excavations of Lumbini, as well as the data from the 2011-2013 excavations of the site. This data includes the collated phasing of the site established by previous investigations, and a comparative phasing produced for this thesis based on the results of the 2011-2013 excavations. The major theme of the chapter will be the examination of the archaeological assemblages from the site, which have been periodised and phased on the basis of absolute dating

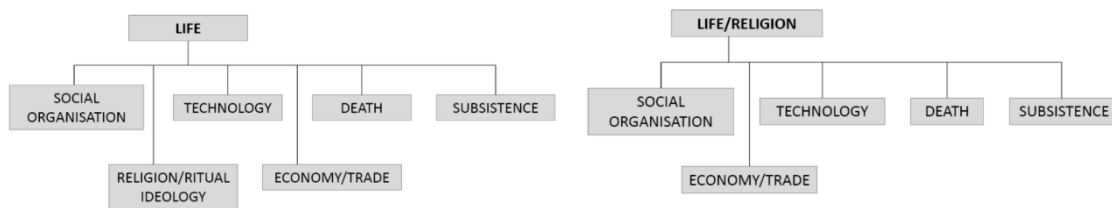
of associated contexts. The results of this ceramic analysis will be used to critique previous ceramic identifications, and emphasise the problems involved in relying on regionally variable, and easily misidentified 'markers'. Chapter Five will then be used to analyse the trends of introduction, continuity, and decline in the ceramic and artefactual assemblages at Lumbini from pre-Mauryan phases across the 'Mauryan Horizon'. The chapter will also be used to assess the presence and absence of the 'typical' markers of early Buddhism and Mauryan occupation outlined in Chapter Three, in order to verify the reliability of these markers in a Buddhist site with known pre-Mauryan and Mauryan period occupation. This will fulfil Objective Four, and set up the basis for comparison of evidence to other case study sites.

Chapter Six will compare the analysis of artefactual and ceramic trends, and of the presence and absence of early Buddhist and Mauryan period 'markers' at Lumbini, to the collated archaeological data from five other case study sites. These sites are, like Lumbini, all known to have occupation phases dating to pre-Mauryan and Mauryan periods, and are believed to have Buddhist monuments. The chapter will discuss the identification of the typical early Buddhist and Mauryan period 'markers' at these sites, and possible indications of cultural continuity across the Mauryan horizon, in order to determine whether Lumbini represents a unique outlier, and the textual narratives can be supported by the archaeological evidence, or whether reappraisal of the relationship between texts and archaeology is necessary across the subcontinent. The sites chosen for this analysis cover both geographical range and site type of the estimated Mauryan Empire, with Anuradhapura representing a control site beyond the limits in Sri Lanka.

Chapter Seven will test the recent archaeological models of Mauryan authority proposed by Romila Thapar and Monica Smith. The predicted and inferred cultural assemblages of these models will be compared to the evidence from Lumbini and the case study sites of the preceding chapter, and assessments of the archaeological support for these models will be made based on the analysis of cultural continuities, and the presence or absence of early Buddhist and Mauryan period markers across the Subcontinent. The successes and potential shortcomings of these models will be explored, and alternative factors to be included in future models will be outlined for consideration. In a final review of the results of the thesis, flaws in past and current archaeological methodologies will be noted, and potential solutions highlighted for future discussion.



Figure 1.1 Map of case study sites.



Figures 1.2 (left) 1.3 (right): two views of the 'place' of religion (from Insoll 2004: 23).



Figure 1.4. Gandharan relief depicting the Birth of the Buddha

(Image source <http://www.metmuseum.org/toah/works-of-art/1987.417.1>)



Figure 1.5. Gandharan sculpture depicting the fasting Buddha

(Image source http://www.britishmuseum.org/explore/highlights/highlight_objects/asia/s/schist_head_of_the_fasting_bud.aspx)



Figure 1.6. Asokan pillar at Vaisali. From the Marshall photographic collection held at the oriental Museum, Durham University (Volume 41, #3268).

Chapter 2: Literature Review

2.1 Introduction

As noted in the Introduction, this chapter will summarise the history and development of Buddhist scholarship in South Asia, focusing particularly on the contributions of the European scholars who were responsible for its foundations and on the methodological and theoretical frameworks of the field. There are three important themes in Buddhist scholarship that will be addressed in this literature review in order to preface this thesis: the textual bias inherent in the archaeology of Buddhism, a focus on monumental architecture, and the role of the Emperor Asoka and the Mauryan Empire in the propagation of early Buddhism. All of these themes can be traced from the beginnings of Buddhist scholarship in the eighteenth and nineteenth centuries and continue into the present day.

For archaeologists living in the post-colonial, post-processual and post-modern world, reflecting on the history of the discipline has become second nature. Understanding where ideas and practices come from and how they have been influenced by historical circumstances has become particularly important in South Asian archaeology given that the discipline, as in many other areas, was born out of colonial interests. Indeed, recent scholarship has suggested that in the eighteenth and nineteenth centuries, the archaeology of Buddhism in South Asia was used as a tool to legitimise colonial rule and rationalise racism and it is important to understand the historical context that defined the beginnings of the discipline (Lopez 1995; Ray 2004; 2008; Johnson-Roehr 2008; Van Dommelen 2011).

Buddhism was known in Europe well before the eighteenth century but there are few textual references relating to it. It is probable that the Greek explorer Megasthenes came into contact with Buddhism during his travels in South Asia and his extended stay in the Mauryan capital of Pataliputra, but he does not refer to it by name (Welbon, 1968: 4; Batchelor 1994: 7). There are also several arguments for Buddhist influence on the Gnostics in the early Christian period, particularly of Manichaeism, as Mani travelled extensively in the 'Far East' including the Northwest of the Subcontinent (Lopez 2013: 7; Batchelor 1994: 28f). However, it was not until the thirteenth century CE that Europe received the first explicit information about Buddhism. The first description was from

Franciscan Friar William Rubrock who, in the spring of 1253 CE, journeyed to the court of one of the Tartar Khans as an emissary of Louis IX of France (Lopez 2013: 66), and secondly from famed Venetian traveller Marco Polo (Lopez and McCracken 2014: 9). In the account of his journey through Asia (1271-1295 CE), Marco Polo describes certain religious devotees as 'Idolators' and ascribes the origin of this religion of 'Asiatic idolatry' to Sagamoni Borcan. 'Sagamoni' is the Mongol corruption of Sakyamuni and 'Borcan' is an Altaic word which among the Turkish and Mongol tribes of upper Asia was used to describe not only a divinity, but also its image (ibid.). Polo writes that "For certainty, if he had been baptised a Christian he would have been a great saint before God" (ibid.). During the sixteenth, seventeenth and part of the eighteenth centuries, much of Europe's knowledge about Buddhism was based on the accounts of various travellers, missionaries, and traders that journeyed through the Indian Subcontinent. Captain Robert Knox (1641-1720 CE), an English sea captain of the British East India Company, wrote of his 19 year captivity by the Kandyan king on the island of Ceylon (Knox 2004). His account revealed stories of sacrifice, strange rituals, and monuments and cites lost to the jungle:

[There are] ruinous places that do still retain the name of cities; where kings have reigned, though now there are little footsteps remaining of them... Anuradhapoora, where they say ninety kings have reigned; the spirits of whom they hold now to be saints of glory, having merited it by making pagodas, and stone pillars and images to the honour of their gods...(Knox 2004: 308).

It is noticeable that until the eighteenth century many of these accounts were tinged with superiority and disdain of the idolatrous religion that was reputed to be both atheist and annihilationist (Welbon 1968: 20f). Buddhist scholarship began in Europe in the eighteenth and nineteenth centuries as a development of the Enlightenment that flourished under the Romantic Movement. The period saw a shift away from the descriptive commentary on Buddhism produced by the travellers and missionaries, towards a more scientific study of the religion—beginning with the translation of texts. It was the work of individuals such as William Jones, Brian Hodgson Houghton, Alexander Csoma de Koros, George Turnour, Eugene Burnouf, Max Muller, James Princep, and Thomas William Rhys Davids that founded the tradition of textual Buddhist studies that continues today—a tradition that is entrenched in philology and shaped by European philosophy (Lopez 1995).

The archaeology of Buddhism in South Asia emerged as a discipline in its own right in the early twentieth century. The discipline's early history in the nineteenth century was still very much

entwined with textual scholarship, particularly through the work of Alexander Cunningham and his use of the Chinese pilgrim's accounts (Johnson-Roehr 2008) but also focusing on the monumentality of Buddhist architecture, with individuals such as James Fergusson, James Burgess and H.C.P. Bell classifying and recording temples and monasteries. Later, in the twentieth century, focus on this monumentality continued with the conservation work of John Marshall. The late eighteenth and early nineteenth centuries also saw the first introduction of the name of 'Asoka' into Europe's consciousness as the champion of early Buddhism, in the work of William Jones, James Prinsep, and George Turnour (Allen 2012). The following century saw the rise of the 'cult of Asoka' in Buddhist scholarship, popular culture, and politics and the view that the Mauryan Empire was a vast territorial state that acted as the vehicle for the propagation of early Buddhism in South Asia.

2.2 Institutionalisation of Texts in the Archaeology of Buddhism

It is argued in this thesis that textual scholarship has become institutionalised within South Asian archaeological methodology, in that it has become the norm for historical texts to hold primacy over the archaeological evidence. The institutionalisation of textual studies in Buddhist scholarship was the cumulative result of the work of a number of individuals in Europe and South Asia. The following examination places these actors within the historical and philosophical backdrop of the eighteenth, nineteenth, and twentieth centuries, highlighting the ways in which their interpretations were influenced by their contemporary contexts. This analysis will serve to illuminate the way in which textual scholarship and architecture became institutionalised within the archaeology of Buddhism in South Asia and how Western notions of 'empire' and 'imperialism' shaped the South Asian view of Emperor Asoka and the Mauryans.

2.2.1 Early Textual Scholarship in South Asia

William Jones (1746-1794), was an English lawyer, philologist, and Fellow of the Royal Society who moved to India in 1783 to take up a position as a Judge in the Supreme Court of Calcutta (Figure 2.1). Before arriving in India, Jones was already an accomplished linguist, publishing a Persian Grammar in 1771 to help East India Company employees learn Persian, as well as encouraging European scholars to translate Persian manuscripts for intellectual and cultural enrichment (Cannon 1964: 24). Unfortunately, the Grammar was linguistically unsound, as he had followed an older vernacular, claiming that the language had deteriorated in the modern day, becoming more vulgar (ibid.). This

was to be the first example of Jones' idealisation of the past, a theme that runs throughout his work in South Asia.

On arriving in India, he became associated with Warren Hastings, the first Governor General of India, who believed that if British Rule in India was to prosper, British administrators must learn the languages and customs, and work within the existing institutions of the country (Keay 1988: 23). Hastings and Jones shared the belief that language and writing were the keys to achieving an ideal state of governance. However, this placed determinacy in the hands of the Brahmins, who were, in the eighteenth century, the only speakers of Sanskrit, the sacred written language of Hindus (Keay 1988: 24). Very little was known at that time of the history of the Subcontinent and its people before the Muslim conquest, and Jones saw Sanskrit as the means of discovering that history, as well as offering a new and difficult challenge as very few Europeans had ever been allowed to study the language. Jones' interest in Eastern languages and literature has already been noted, and he began to learn the language, spending his spare time reading and translating various Sanskrit texts. Jones went on to found the Asiatic Society of Bengal, a group modelled on the Royal Society and dedicated to the study of the history and natural history of South Asia. His founding principle was that the society would:

...investigate whatever is rare in the stupendous fabric of nature, correct the geography of Asia,...trace the annals and traditions of the nations who have peopled or desolated it;...examine their methods in arithmetic and geometry, in trigonometry, mensuration, mechanics, optics, astronomy, and general physics;...morality, grammar, rhetoric, and dialectic;...medicine, anatomy and chemistry...researches into their agriculture, manufacture and trade...music, architecture and poetry. If it be asked what are the intended objects of our enquiry within the spacious limits, we answer Man and Nature; whatever is performed by the one or produced by the other (Mukherjee 1968: 26).

Jones' grandiose vision for the society remains one of his most enduring legacies, and has inspired generations of scholars and dilettantes alike. The impact of European interests and promotion of the Sanskrit texts also helped influence the changes in attitude of many European administrators. The translation of Sanskrit texts by the Asiatic Society created a strong literary bias throughout Oriental Studies, but there remained a problem in tying the fragmented history relayed in the Sanskrit manuscripts to Western dates and events. Although edifying, the texts were of little use in chronicling the past rise and fall of states and nations (Kejariwal 1997: 7). For Jones and his colleagues at the Asiatic Society, it appeared as if the Sanskrit texts and therefore 'Hinduism'

predated the rise of any other religion or state in South Asia (Keay 1988: 66). Jones looked to Classical sources to date the ancient history of South Asia, and concluded that Chandragupta Maurya, from the Sanskrit king lists, was Sandrokoptos from Megasthenes' *Indica*, who ascended the throne of Magadha between 325-313 BCE (Allan 2012: 68). This was the first event in South Asia's recorded ancient history to be given a Western date, and the impact was crucial to the development of Buddhist scholarship in South Asia, as this date would later lead to unlocking the Subcontinent's Buddhist past, as well as determining the date for the birth of the Buddha (ibid.).

Jones' passion for Oriental studies, in particular philology and literature, had a profound effect on the next generation of Orientalists. In founding the Asiatic Society of Bengal, he and his colleagues created an institution, a centralised body of study so that future generations of Orientalists could debate and examine "whatever is rare in the stupendous fabric of nature" (Mukherjee 1968: 26), just as he had intended. The Sanskrit renaissance which followed led to the establishment of a Sanskrit College at Varanasi, further institutionalising the study of Sanskrit in South Asia scholarship, and intensifying the national pride in ancient language and literature (Cannon 1964: 177).

Following the death of William Jones in 1794, first Henry Thomas Colebrook and then Horace Hayman Wilson took control of the Asiatic Society of Bengal. Wilson's narrow vision for the Society resulted in many important archaeological and historical discoveries being neglected, and even the hitherto unknown religious manuscripts being brought in from China, Ceylon, and Burma were largely ignored at the time (Allen 2012: 77), but his enthusiasm for Sanskrit further institutionalised the dominance of text in South Asian scholarship. It was not until James Prinsep took up the post of Secretary of the Asiatic Society in 1832 that the collection of manuscripts and the discovery of archaeological remains began to be taken seriously and Buddhism came to the forefront of South Asian scholarship. As the European foothold in South Asia increased during the early nineteenth century, areas that had previously been unexplored or unknown were opened up and individuals such as George Turnour, Brian Houghton Hodgson, and Alexander Csoma de Koros began collecting and translating manuscripts from Sri Lanka, Nepal, and Tibet (Kejariwal 1999: 184; Lopez 2013: 187). Up to this point, the name 'Buddha' had been known, but little about his life had been understood, and it had generally been believed that he was not native to the Subcontinent, but was either Egyptian or Ethiopian (Keay 1988: 66). Mathematician and Orientalist, Reuben Burrow even went so far as to say that:

In England, it is obvious, Stonehenge is evidently one of the temples of Boodh; and the arithmetic, the astronomy, astrology, the holidays, games, names of the stars and figures of the constellations; the ancient monuments, laws, and even

the languages of the different nations have the strangest marks of the same original...[and further] that the Druids of Britain were Brahmans is beyond the least shadow of a doubt (Burrow 1801: 488).

The diffusionist view that Buddhism was imported to the Subcontinent changed in the nineteenth century with the collection and translation of hundreds of manuscripts from Nepal and Tibet, as well as the translation of the Pali Chronicles in Sri Lanka. It became clear that not only was Buddha a native of the Subcontinent, but that 'Buddhism' may have come before 'Hinduism'. Some of the earliest dedicated studies of Buddhism in this period were conducted by Brian Houghton Hodgson, a talented linguist, civil servant, and British Resident in Nepal between 1833-1844.

Brian Houghton Hodgson began his career at the age of seventeen as a writer for the East India Company and ended it at the age of 95 as one of the leading scholars on Buddhism to emerge from the civil service (Kejariwal 1999: 195) (Figure 2.2). His biographer W.W. Hunter said of him:

Had he died seventy years previously; he would have been mourned as the most brilliant young scholar whom the India's civil service has produced. Had he died in middle life, he would have been remembered as the masterly diplomatist who held quiet the Kingdom of Nepal and the warlike Himalayan races throughout the disasters of the Afghan war. Had he died at three-score years of age, he would have been honoured as the munificent Englishman who enriched the museums of Europe with his collections, enlarged the old boundaries of more than one science, and opened up a new field of original research (Hunter 1896: 1).

It was his declining health in the Calcutta climate that drove him to accept the position of Assistant Commissioner in Kumaun, and after two years there, to accept a position in Nepal as Assistant Resident and later as British Resident (Lopez 2013: 174). Early in his career, Hodgson's curiosity was aroused by a visit to the site of Sanchi and he decided to use his residency in Nepal to gain a better understanding of the religion (ibid.). In his *Sketch of Buddhism* (1829), he writes, "Soon after my arrival in Nepal (1821) I began to devise means of procuring some accurate information relative to Buddhism; for, though the regular investigation of such a subject was foreign to my pursuits, my respect for science in general led me cheerfully to avail myself of the opportunity afforded by my residence in the Bauddha country, for collecting and transmitting to Calcutta the materials for such investigation" (1829: 222). The Nepalese monks were far from cooperative, but he found one

elderly monk residing in the city of Patan whom he questioned at length in order to draw up a sketch of Buddhist beliefs (Keay 1988: 67).

Hodgson's extensive collection of manuscripts was donated during his life to the Asiatic Society, the Royal Society in London, the Indian Office Library, the Bodleian Library at Oxford, and to Eugene Burnouf at the Société Asiatique de Paris, and his donations and translations were instrumental in facilitating a number of discoveries (Lopez 2013: 175). One of the most overlooked aspects of his work was his issue with the considerable divergence between the practices of Buddhism he witnessed in Nepal and the 'traditional' Buddhism that was described in the manuscripts (Waterhouse 2004: 61). This was a difficult concept for scholars who were used to studying Classical civilisations and belief systems that did not exist in the modern period as Buddhism did (Keay 1988: 68). The issue was picked up by scholars throughout the nineteenth and early twentieth century, but it was not until the second half of the twentieth century that a more critical approach was taken, one which will be returned to and addressed later in this chapter.

Although Hodgson was instrumental in the 'rediscovery' of Buddhism in South Asia, it seemed from his writings that he did not share William Jones' admiration and passion.

The purpose of my two essays on Buddhism was to seize and render intelligible the leading and least absurd of the opinions and practices of these religionists, in order to facilitate to my countrymen the study of an entirely new and difficult subject in the original...I had no purpose, nor have I, to meddle with the interminable sheer absurdities of the Bauddha philosophy or religion; and, had I not been called upon for the proofs of the numerous novel statements my two essays contained, I should not probably have recurred at all to the topic (Waterhouse 2004: 61[1834: 382]).

This view seems to be in opposition to the work of one of his contemporaries, Alexander Csoma of Koros, who dedicated his life to the study of Tibetan manuscripts. Nevertheless, Hodgson's collection, his passion for linguistic studies and his early essays on the schools of Buddhism were instrumental in shaping the early discipline. Alexander Csoma of Koros is a unique figure in this history as he was not a member of the Civil Service nor did he belong to any faction of European society living in South Asia at the time, and yet like Hodgson, his collection and translation of manuscripts was crucial to the study of Buddhism (Figure 2.3). Born in Transylvania in 1784, Csoma left his home in Hungary in 1820 in search of the ethnic homeland of the Magyar people. He travelled east through the Middle East, Persia, and Central Asia eventually arriving in the Himalayas

(Lopez 2013: 181). It has been reported that Csoma lived a frugal life in the cliff-top monasteries of Ladakh and Kinnaur, living off Tibetan tea and only possessing a single change of clothes, entirely engrossed in the texts before him (ibid.: 182). In order to pursue this study Csoma applied to the head Lama at the monastery at Yangla in Zaskar, learned the language and became acquainted with the 320 large printed volumes. His contributions flooded into H.H. Wilson at the Asiatic Society, who ignored the manuscripts just as he had ignored the same from Brian Hodgson but the new Secretary, James Princep, recognised his dedication and encouraged Csoma by providing him a small stipend to continue his work and paying for the publication of his Tibetan Grammar and Dictionary in Calcutta (ibid.).

Csoma wrote to his contemporary, Hodgson in Kathmandu, and between the two of them they were able to recognise that the Tibetan texts were in fact translations of Sanskrit texts from India. If Brian Hodgson seemed unsympathetic towards Buddhism, Csoma was the opposite, fascinated not only with the language, ethics, and practices of Buddhism but also the spirituality and personal benefit one might derive from Buddhism (Welbon 1968: 47). He wanted “to excite the curiosity of the learned to search after the ancient state of the Buddhists, and to respect a religion which is founded on the same moral principles with our own, namely, on the love of all men” (Duka and Hunter 1972: 60). Csoma’s collection, translation, and cataloguing of both the Tibetan manuscripts that he collected and Hodgson’s Sanskrit manuscripts, donated to the Asiatic Society, were invaluable to the study of Buddhism in South Asia. His legacy is best defined by his personal sacrifice and passion, similar to William Jones’ generation of Orientalist (Welbon 1968: 41f), and in 1933 Csoma was “canonised” in Japan as a Bodhisattva in recognition of the fact that he “opened the heart of the Western World to the understanding of Buddhism” (Peiris 1973: xxii; Lopez 2013: 182).

As Brian Hodgson and Alexander Csoma of Koros were collecting and translating Sanskrit and Tibetan manuscripts in the Himalayas, George Turnour was making discoveries of his own in Ceylon. Turnour was born in Ceylon in 1799, the son of an English officer and a refugee French aristocrat. He returned to the island as a 20 year old Ceylon Civil Service Cadet and quickly became interested in the Sinhalese Buddhist culture (Kejariwal 1999: 207). Just as the sacred texts of the Hindus were written in Sanskrit, a language only known by the Brahmins, the sacred Buddhist texts were written in Pali, a language known only by the Buddhist monks and priests. Turnour set out to learn Pali in order to translate a rare text known as the *Mahavamsa*, which reportedly chronicled a detailed history of the island and eventually succeeded in publishing the *Great Dynastic Chronicle* (ibid: 184). His work, however, was not immediately appreciated by his fellow Orientalists. He sent a short article on the importance of the chronicle to James Princep, who immediately forwarded it on to his

predecessor H.H. Wilson. Wilson refuted Turnour's central argument that the Pali canon demonstrated the major role that the Mauryan Emperor Asoka had played in the development and spread of early Buddhism (Allen: 2012: 141). Wilson claimed that the Pali chronicle was an unreliable document when compared to Brahmanical texts such as the *Puranas* and the *River of Kings*, which described Asoka as a worshiper of Shiva. Turnour was persistent in his claims, however, and Princep sent the work on to Reverend William Mill, the Society's Vice President, who recognised that the *Great Dynastic Chronicle* pre-dated the *Puranas* by some centuries and was indeed a reliable historical document.

The chronicle revealed that it was an individual called Piyadassi who brought Buddhism to Ceylon; the very same name that was discovered inscribed on a number of pillars and rock edicts spread across the Subcontinent but it was still not clear who this individual was as the name did not appear in any of the Sanskrit king lists. As described previously, it was William Jones who had made the connection between Chandragupta and the Indian King identified by Megasthenes as Sandrokoptos but it was Turnour who finally connected the Indian and Western chronologies. Whilst examining a large collection of Pali Buddhist works brought to Ceylon from Siam, Turnour came across another chronicle of the island called the *Dipavamsa* which revealed that:

Two hundred and eighteen years after the beatitude of Buddha, was the inauguration of Piyadassi...who, the grandson of Chandragupta, and own son of Bindusara, was at that time Viceroy at Ujjayani (Turnour 1837: 791).

Turnour's discovery enabled Princep to identify King Piyadassi as King Asoka, grandson of Chandragupta (Allen 2012: 208). This marked a turning point in South Asian historical research and one for which Turnour was given Honorary Membership of the Society. Turnour has also been described since by Pali scholar Thomas Rhys Davids as "the founder of all Pali scholarship" (Peiris 1973: 46).

James Princep's tenure as Secretary of the Asiatic Society was a turning point in the study of Buddhism in South Asia as he encouraged and published contributions from Hodgson, Csoma, and Turnour and worked with them to piece together the history of the Subcontinent, drawing on his own work deciphering Brahmi scripts and translating five pillar and various rock inscriptions that had been sent to the Asiatic Society over the years (Keay 1988: 52f). Using the Sanskrit king lists and Himalayan Buddhist sources from Hodgson and Csoma, as well as the Pali Chronicles from Ceylon translated by Turnour, and various inscriptions and monuments rediscovered by antiquarians such as

Alexander Cunningham, Buddhism began to take centre stage in South Asian history, with the Emperor Asoka as its champion. There were other factors at work during this period that enabled the further rise of Buddhist scholarship, including a growing distaste for India and its culture and religions amongst the British ranks, the fall from fashion of the sympathetic opinions of Jones' generation, and the end of the Sanskrit renaissance (Keay 1988: 76). Three new forces came into play in South Asia: the Evangelicals, the Utilitarians and the rising national superiority of the British. Thomas Macaulay was the driving force in the anti-Sanskrit movement, convincing the government to withhold funding for all institutions that used languages other than English, effectively banning Sanskrit and vernacular studies in South Asia (ibid.: 77). In a speech given to the House of Commons in 1835, Macaulay said of Hinduism:

In no part of the world has a religion ever existed more unfavourable to the moral and intellectual health to our race. The Brahmanical mythology is so absurd that it necessarily debases every mind which receives it as truth; and with this absurd mythology is bound up an absurd system of physics and absurd geography, an absurd astronomy...All is hideous and grotesque and ignoble. As this superstition is of all superstitions the most irrational, and of all superstitions the most inelegant, so it is of all superstitions the most immoral (Keay 1988: 77f [1835]).

The weight of anti-Orientalist prejudice fell on Sanskrit and Hinduism, but Buddhism was regarded as a less objectionable alternative by the British as the Buddhist sculpture was never 'obscene' like the Hindu gods and goddesses; the 'message' was easier to liken to Christianity, and it was an altogether quieter and gentler religion than Hinduism. Most importantly, Buddhism was thought to be a 'dead religion' in India and therefore there was no question of offering encouragement to the 'pagans' (ibid.: 80). Individuals such as Princep and Csoma found themselves to be in a changing world where British Society in Calcutta was growing more exclusive and 'Brahmanicalised' Orientalists were an embarrassment to the service (ibid.: 76f). Princep described the government's decision to stop printing all Oriental works as one "not far outdone by the destruction of the Alexandrine library itself" and felt even more strongly that the role of the Asiatic Society should be to exert its influence to not only save South Asian literature "but also to rescue our national character from the stigma of so unjust, unpopular, and impolite an act" (Kejariwal 1999: 182). Amid all of this anti-Brahmanical and anti-Orientalist action, the study of Buddhism came into its own, to be pursued as a separate entity.

2.2.2 Early Archaeological Scholarship in South Asia

Having reviewed the increasingly institutionalised study of Buddhist texts, the following will account for the principal figures in the early history of the archaeology of Buddhism, and the reliance on the same manuscripts that influence this field. As with the re-discovery of Buddhism described above, the re-discovery of the Buddhist monuments of South Asia in the eighteenth, nineteenth, and twentieth centuries was primarily a European pursuit. As mentioned above, Europe's first introduction to the temples and monuments of Asia was through the accounts of European explorers, surveyors, travellers, and sailors in the seventeenth, eighteenth, and nineteenth centuries. The accounts from the nineteenth century are often tinged with romantic notions of 'lost civilisations' from a 'golden age' of history far removed from the present cultures they encountered. French naturalist and explorer Henri Mouhot was responsible for the popularisation of the ruins at Angkor in Cambodia, writing:

One of these temples—a rival to that of Solomon, and erected by some ancient Michael Angelo—might take an honourable place beside our most beautiful buildings. It is grander than anything left to us by Greece or Rome, and presents a sad contrast to the state of barbarism in which the nation is now plunged (Mouhot 1989 [1864]: 279)

The comparison of the temples of Angkor to the Greek and Roman temples and great cathedrals of the West was a theme running throughout nineteenth century accounts. These romantic descriptions of 'exotic' cultures, and 'lost cities' and civilisations captured the imaginations of Europeans; however, like the European preference for the 'pure' Buddhism of the texts, this was a fascination with the 'lost' civilisations of the East, rather than the present 'barbaric' cultures of the Subcontinent.

In the mid-nineteenth century, the British government began to take an interest in preserving South Asia's monuments (Roy 1953: 9; Ray 2008). At the request of the Royal Asiatic Society, the Indian Government sanctioned a small sum of money for repairs to archaeological monuments and the Bombay Government proposed a 32 year scheme for recording the principal objects in Western India. The Court of Directors was not interested in the long-term scheme and instead drew up a detailed plan for the formation of an antiquaries commission. The Commission was directed to prepare preliminary reports upon each temple and building and to decide which monuments were worthy of delineation (ibid.). The Indian Government appointed Markham Kittoe to conduct operations in Bihar and Varanasi; Major F. Maisey was to draw the antiquities at Kalinjar and the sculpture at Sanchi; and Captain Gill was to copy the paintings in Ajanta and the Ghat caves (ibid.:

10). These directives were soon laid aside during the Indian Mutiny and it was not until 1861 that General Alexander Cunningham proposed the organisation of the Indian Archaeological Survey to preserve the monuments in northern India. Lord Canning approved the commission, stating that “it will not be to our credit...if we continue to allow such fields of investigation as the remains of the Old Buddhist capital in Bihar...the plains round Delhi studded with ruins more thickly than even the Campagna of Rome, and many others to remain without more examination than they have hitherto received” (1862). Cunningham became the first Director General of the Archaeological Survey of India, a department whose mission was defined to be “an accurate description--illustrated by plans, measurements, drawings or photographs and by copies of inscriptions—of such remains as deserve notice, with the history of them so far as it may be traceable, and record of the traditions that are retained regarding them” (1862: I). It is interesting to note that the preservation of the monuments was left out of the mission at this point as the Government did not wish to commit to such a lengthy and expensive campaign (Roy: 1953: 10).

Alexander Cunningham began his career in South Asia as a Second Lieutenant in the Bengal Engineers, and by the end of his career he had risen to the rank of Major General, as well as Director General of the Archaeological Survey of India (Figure 2.4). In this role, he has since been thought of as the ‘father of Indian archaeology’. He had an avid interest in many different aspects of Indian antiquities and published on subjects such as language and numismatics (Trautmann and Sinopoli 2002: 498). However, it was his dedication to archaeological fieldwork, influenced by James Prinsep that set him apart (Allen 2012: 235). The systematic nature of his Sanchi excavation can be considered one of the first modern archaeological pursuits in India and his report was far more scientific and methodical than the later writings of John Marshall on the same site (Allen 2002: 286; Allen 2012: 236).

Cunningham was a prolific scholar and his accomplishments as Director General are demonstrated by the 24 annual reports he presented, over half of which were based on his own discoveries. Perhaps Cunningham’s greatest single contribution to the archaeology of Buddhism resulted from the discovery and translation of the Chinese pilgrim accounts. The impact of this discovery was, and to some extent remains, a guiding influence in the archaeology of Buddhism. A ground breaking publication, *Foe Koue Ki ou Relation des Royaumes Bouddhiques* (1836) by Abel-Rémusat described the fifth century CE sub-continental pilgrimage route of the Chinese pilgrim Faxian. In response to this publication Cunningham proposed to follow the pilgrim’s route from city to city, excavating any *stupas* that were found along the way (Chakrabarti 1982: 332; Coningham 2001: 63; Johnson-Roehr 2008: 509ff). In 1857, the translation of a second Chinese traveller’s account, Xuanzang from the

seventh century CE, coincided with textual proof collected by Hodgson, Csoma, and Turnour, of the historical authenticity of the Buddha (Chakrabarti 1982: 332). For Cunningham, already intent on pursuing Faxian, this new evidence provided another 'map' for discovering Buddhist remains but also placed archaeology in the supreme position of judge on the authenticity of South Asia's Buddhist history—archaeology could be used to 'prove' the textual sources (Johnson-Roehr 2008: 510). In an 1861 memorandum to Lord Canning, Cunningham outlined his vision for the ASI, proclaiming that it would "follow the footsteps of the Chinese pilgrim Hwen Thsang [Xuanzang], who in the seventh century of our era, traversed India from west to east and back again for the purpose of visiting all the famous sites of Buddhist history and tradition" (Cunningham 1972[1866]: iv). It would seem that Cunningham was attempting to distance the study of South Asia's history from the language-based methodology of William Jones and his contemporaries, by giving it a geographical context, but his overwhelming reliance on the pilgrims' texts served to tie archaeology and text even closer (Johnson-Roehr 2008: 511). The textual sources provided illustration for this history, and the strategy lent tangible substantiation to historically attested events (Trautmann and Sinopoli 2002: 499). Cunningham spent most of his archaeological career attempting to identify sites that were part of this pilgrimage network of Buddhist monuments within the Subcontinent, writing "it is almost impossible to exaggerate the importance of these travels for the light which they throw upon early Indian history; and for the illustration of the Buddhist antiquities of India, it is not too much to say that they are quite invaluable" (1972[1866]: 84-85). Cunningham's overwhelming reliance on the Chinese pilgrim's accounts was to lead him to the rediscovery of some of the most important Buddhist sites in South Asia and laid the foundation for the marriage of textual sources and archaeology in South Asia. However, Cunningham's focus on texts was limited to specifically Buddhist sources and, following in the anti-Brahmanical movement described above, he had little regard for the *Puranas* as historical sources, asserting that the "discovery and publication of all existing remains of architecture and sculpture, with coins and inscriptions, would throw more light on the ancient history of India, both public and domestic, than the printing of all the rubbish contained in the 18 Puranas" (1854). He believed that the discovery of material artefacts would reveal South Asia's 'authentic' or 'true' Buddhist history, counteracting the contemporary belief system of the indigenous population (Johnson-Roehr 2008: 510).

Cunningham's use of the Chinese pilgrim's texts led him to the discovery and excavations of numerous sites associated with the life of the Buddha, including Rajgir where, according to the textual sources, the first Buddhist monastery had been built and the first Buddhist Council held (Allen 2008: 63). He then went on to identify the jungle covered site of Saheth-Maheth, in present-day Uttar Pradesh as the ancient city of Sravasti and the associated Jetavana monastery that had

served as the summer rains retreat for the Buddha and his disciples (ibid.: 64). Near the modern town of Kasia in Uttar Pradesh, Cunningham's assistant Archie Carlleyle discovered the colossal statue of a recumbent Buddha described in the account of Xuanzang, identifying the site of Kushinagara where the Buddha achieved his *Mahaparinirvana*. Carlleyle then went on to rediscover another Asokan pillar at the site of Rampurva in Bihar also along the line of an old road north which led from Magadha to Nepal. He posited that these four different pillars were erected to mark Asoka's royal pilgrimage and were intended to be seen by travellers and pilgrims along the road from Pataliputra to Nepal and that there should be more inscriptions somewhere in the Nepal Terai (ibid.: 67). However, it was not Carlleyle or Cunningham who would pursue this lead into Nepal, but Anton Fuhrer, Archaeological Surveyor of the North-West Provinces and Oudh Circle. Cunningham and his assistants located many key sites from the pilgrim's accounts but some of the more elusive sites included Kapilavastu and Lumbini; the natal city and the birth-place of the Lord Buddha (Cunningham and Tremblay 2013: 62). In 1893, Jaskaran Singh, an officer serving the Government of Nepal, reported the discovery of an Asokan pillar on the bank of a large tank called Niglihawa Sager in the Nepal Terai just as Carlleyle had predicted decades before. Anton Fuhrer was sent to investigate the surrounding sites and it was this sequence of events that led to the discovery of the birthplace of the Buddha—Lumbini (Mitra 1972: 5; Falk 1998: 5). During his investigations in the Nepal Terai, Fuhrer was invited to meet General Khadga Shumsher Rana, the Governor of Palpa, at his camp near the village of Padariya located eight kilometres from the Indian border (Cunningham and Tremblay 2013: 63). Less than half a kilometre to the north-east of the village was "a five acre thicket of trees, breaking the flat level of the surrounding plough-land, bounded by a small meandering stream on its eastern side and a small pond on the south" (Fuhrer 1972: 28). Within this raised thicket were four discernible mounds, and on one the largest stood a "small modern mean-looking temple, dedicated to that goddess [Rupadevi], which was erected by a Saiva ascetic on top of one of the ruined stupas about four years ago" (ibid.: 28)(Figure 2.5). Inside the temple, Fuhrer identified the statue of Rupadevi as a partial scene representing Maya Devi giving birth to Sakyamuni Buddha (Allen 2008: 135). Adjacent to the temple was a pillar rising about three metres from the ground with a visible Medieval inscription. Fuhrer and Khadga Shumsher employed their labourers to dig around the base and uncovered a Brahmi inscription which identified the site as Lumbini (ibid.: 139) (Figure 2.6). Although the rediscovery of Lumbini is often attributed to Fuhrer, the site and pillar were already known locally and Khadga Shamser had sent rubbings of the Medieval inscription near the top of the pillar to Vincent Smith some years earlier, who failed to recognise the site (Cunningham and Tremblay 2013: 64). With the rediscovery of Lumbini and the identification of the nearby site of Niglihawa Sagar as the birthplace of Kanakamuni Buddha, Fuhrer set his sights on

Kapilavastu, the childhood home of Sakyamuni Buddha. As Cunningham and his assistants had done before him, Fuhrer looked to the Chinese pilgrim's accounts, proclaiming that Kapilavastu lay 29 kilometres north-west of Lumbini and about 10 kilometres north-west of Niglihawa Sagar (Allen 2008: 140). Shortly after Fuhrer announced his discoveries, his work came under close scrutiny and he resigned from his post as Archaeological Surveyor of North Western Provinces and Oudh, under allegations of plagiarism and fraud (Cunningham and Tremblay 2013: 65). The Government of North Western Provinces and Oudh then commissioned Laurence Austine Waddell and Purna Chandra Mukherji to investigate the quality of Fuhrer's discoveries and plan and excavate the sites (*ibid.*). The rediscovery of various sites associated with the life of the Buddha in the Nepal Terai caused further controversy, especially regarding the identification of Tilaurakot as Kapilavastu. A contender for the natal city of the Buddha, Piprahawa, was proposed eight kilometres south of the Nepal border in neighbouring India, igniting a political dispute between Nepal and India for the right to claim Kapilavastu (Allen 2008: 246). The controversy surrounding Fuhrer himself may account for some of the controversy surrounding these two sites, but for most people, the Asokan inscription at Lumbini firmly identifies the site. However, the identification of Kapilavastu as Tilaurakot remains an unresolved issue today.

Regardless of these issues of identification, it is clear that Alexander Cunningham's enthusiastic pursuit of the historic landscape of Faxian and Xuanzang and his emphasis on fieldwork had the greatest impact on the development of Buddhist archaeology in South Asia in this period. Although it may seem that Cunningham was moving away from the language-based study of Buddhism discussed above, his brand of locative archaeology—excavating to prove that a site existed as described by the pilgrims' texts—tied the study of archaeology and philology even tighter (Johnson-Roeher 2008: 510). The successful identification of monuments and sites such as Kapilavastu and Lumbini, described in texts already widely regarded as 'pure' and irreplaceable, served to cement the study of texts into archaeological scholarship. Similar studies that followed have created reliance upon the manuscripts, elevating them to a position of primacy and near infallibility in scholarship. The problems for both modern archaeology and history can be seen in the practice of archaeology in South Asia throughout the twentieth and into the twenty-first centuries.

It was during the first half of the twentieth century that the prehistory, as opposed to the recorded history of South Asia came to the fore of archaeological scholarship. Like his contemporaries in Europe and elsewhere, Cunningham's archaeological understanding was limited, dependent on the written word, and unable to incorporate archaeological evidence that lay outside the constructed framework of the historical narratives (Trautmann and Sinopoli 2002: 500). The notion that South

Asia could have a rich prehistoric past was inconceivable (ibid.). The idea of 'prehistory' was introduced into the English language in 1851 (Daniel 1962) and the resulting Time Revolution of the 1860's changed the way in which archaeologists approached the material culture. Without the textual sources to provide the narrative, the study of material culture came into its own for the first time (Trautmann and Sinopoli 2002: 497). However, due in part to the way in which textual sources dominated the study of South Asia's past, these ideas were slow to reach South Asia and it wasn't until the early twentieth century that the prehistory of the Subcontinent was recognised (ibid.: 516). As will be described in more detail below, during John Marshall's tenure as Director General of the ASI and the discovery of the Bronze Age Indus Civilisation, the focus of archaeology in South Asia shifted away from the locative archaeology of Cunningham and his contemporaries, focusing instead on the material culture of prehistoric sites and the architecture and the conservation of monuments, particularly those Buddhist sites identified by the previous generation.

In post-Independence and post-Partition India, the focus shifted back towards Cunningham's brand of locative archaeology, but this time locating sites from the Sanskrit epics the *Ramayana* and *Mahabharata* (Chakrabarti 1999; Johnson-Roehr 2008: 513f). B.B. Lal, Director General of the ASI from 1968-1972, spearheaded this project titled "The Archaeology of Ramayana Sites", to discover the 'true' history of Aryan India, a programme that was borne of anti-Muslim sentiment in India, and in the end served to escalate the sectarian feelings (Johnson-Roehr 2008: 513f). It was also during this period that Cunningham's legacy came back to play a role in the contemporary politics of Nepal. As mentioned above, during his career, Cunningham was unable to discover all of the sites described in the pilgrims' accounts. In 1968, a joint project between the ASI and the Department of Archaeology his Majesty's Government of Nepal was commissioned to survey over thirty sites in the Nepalese Terai and to excavate at the sites of Tilaurakot, Kodan and Lumbini (Allen 2008: 246; Mitra 1972). The project was led by Debala Mitra of the ASI whose excavations and interpretations at the site of Tilaurakot reignited the controversy as she insisted that, despite contrary evidence, the occupation of the site of Tilaurakot could not be dated back further than the second or third century BCE, and therefore could not be the natal city of the Buddha (Mitra 1972: 15.) (Figure 2.7). Mitra's excavations at Kodan, the supposed site of the Nyagrodha Monastery, were just as inconclusive as she announced that the remains were those of three Brahmanical temples dating to the eighth century CE (Mitra 1972: 159). Mitra's excavations at Lumbini were limited to the western side of the Asokan pillar, but her criticism of the condition of the site was scathing, writing that "practically nothing has been done to conserve the monuments of Lumbini..." (Mitra 1972: 196). The controversial report was not received well in Nepal and the dispute over the sites of Tilaurakot in

Nepal, and Piprahawa in India continues today, with both countries striving to claim the site of Kapilavastu as described in the Chinese Pilgrims' texts.

The second half of the twentieth century saw a shift towards monumentality with an emphasis on conservation, which will be explored in Section 2.3 below. The locative brand of archaeology introduced by Cunningham in his pursuit of the sites recorded by the Chinese pilgrims influenced the archaeological agenda of the ASI with their own pursuit of the sites of the *Ramayana* and *Mahabharata* (Johnson-Roehr 2008). There was a clear division in this endeavour between those who focused on translating and interpreting the ancient textual sources, and those documenting the monasteries, religious monuments, and recording the numerous Asokan edicts and donative inscriptions. This division is still present today in academic institutions with the study of Buddhist texts, doctrine, and philosophy under the purview of 'Buddhist Studies' and the study of the material remains of Buddhism located in art history or archaeology departments (Trautmann and Sinopoli 2002: 510). Communication among these different specialties is minimal at best and the position of primacy remains with the textual sources (ibid.). Recent developments within Buddhist studies have begun to criticise approaches that focus on the precept of Buddhism rather than the practice. Scholars such as Gregory Schopen (1991; 1997) and Kevin Trainor (1997) have begun to compare monastic texts with the material record, noting discrepancies between the prescribed practice of Buddhism in the textual sources and the actual practice of Buddhism in the material record.

2.3 Monumentality in the Archaeology of Buddhism

As described above, eighteenth, nineteenth, and twentieth century Orientalism in both Europe and South Asia gave privilege to the texts as they were thought to give access to the mind and intentionality of the people rather than mere observation of the material culture, which only delivers the outwards material of a culture (Trautmann and Sinopoli 2002: 516). The antiquarian activity of Cunningham and his contemporaries aimed to give the material record more authority in this debate, but was undermined by the overwhelming reliance on the Chinese pilgrims' accounts as a guide to understanding the archaeology. The archaeology merely served as illustration for what was already known in the texts. These illustrations were predominantly in the form of architectural studies. This is not dissimilar to the nineteenth century study of medieval archaeology in Europe with the textual sources being used to interpret the remains and the architectural drawings serving as illustrations (Gerrard 2003: 38). In South Asia, once a site was located the focus was on recording and classifying the sculpture and architecture; the terminology used to describe the various

architectural attributes of the monuments often borrowed from Christian monasteries and churches in Europe (Brown 1956: 27; Rowland 1967: 68f). The focus on monumental remains was in part due to Cunningham's campaign to locate the sites mentioned in the pilgrims account but it was more a reflection of what was happening elsewhere in Europe with antiquarians focusing on art and architecture (Menon 2008: 17). The publications produced in the late nineteenth century by individuals such as Burgess and Fergusson working on the Subcontinent, and Bell in Sri Lanka, were focused on the classification of the different monuments as Buddhist, Hindu, or Muslim according to their architectural features. These studies reduced the complexity of the historical and religious landscapes in South Asia and gave religious identity primacy in the historical and archaeological record (Trautmann and Sinopoli 2002: 500).

2.3.1 Focus on Architecture in the nineteenth century

James Fergusson and James Burgess' particular interests were in the architecture of religious monuments on the Subcontinent. Although working separately, their focus was on the detailed recording of the architectural elements of the standing remains, as was typical of the methodology in this period. James Fergusson spent several years cataloguing sites as part of an architectural tour of the Subcontinent. His careful record of the various temples and monuments he encountered resulted in the first illustrated history of Indian architecture (Roy 1953: 9). For many years, Fergusson's classification of buildings remained the only tool for conducting architectural surveys in the field (ibid.). In his paper, *On the Rock-cut Temples of India* published in 1846, Fergusson not only provided the first systematic study of all major types of rock-cut monuments, complete with illustrations and plans, but he also made a strong case for the preservation of monuments across the Subcontinent (Chakrabarti 1988: 48). Fergusson's work on Indian architecture proved controversial however, as his chronology proposed that different styles were produced by different racial or ethnographic associations (ibid.: 99). Unfortunately, Fergusson's interpretations of the structural and sculptural remains were often inaccurate. His interpretations of the sculptures found in his book *Tree and Serpent Worship* (1873) were especially flawed as he suggested that although there were many Buddhist scenes, the dominating features of the sculptures were their representations of the worship of trees and serpents (ibid.). Cunningham disputed these claims, identifying the serpents as the *nagas*, who according to Buddhist legends paid homage to the Buddha, and arguing that the trees depicted at Sanchi and Amaravati were representations of the Bodhi tree under which Buddha obtained enlightenment (Allen 2002: 229). James Burgess (1832-1917) was the founder of two academic journals: *Indian Antiquary* and *Epigraphia Indica* and was responsible for the

documentation of a large number of sites in Western and Southern India as Director General of the Survey of Western India and Southern India (Chakrabarti 1988: 96f; Ray 2004: 19). Burgess believed that archaeology meant the study of art and architecture, and produced a large number of volumes on Buddhist temples and architecture, complete with illustrations, plans and photographs.

The development of Buddhist archaeology in Sri Lanka followed a similar trajectory to that of the Subcontinent, with a few differences. One of the most obvious differences was that whilst Buddhism had not had a strong presence on the Subcontinent for centuries, Sri Lanka was still a primarily Buddhist country. Antiquarian interest in Sri Lanka began in the late eighteenth and early nineteenth centuries with individuals such as Robert Percival and Dr. John Davy. Percival's work, *An Account of the Island of Ceylon, Containing its History, Geography, Natural History, with the Manners and Customs of its Various Inhabitants* (1803), recorded the characteristics of what he believed to be recent reconstructions of Buddhist monastic architecture (Gunawardhana 2009: 16ff). Dr. John Davy, an antiquarian with an interest in Buddhist architecture, stated in 1821 that the Buddhist monastic architectural traditions of Sri Lanka were externally influenced, comparing Sri Lankan Buddhist monastic units with those of Southeast Asia and China, and declaring that it was clear that the architectural style of the Tooth-relic building in Kandy, was influenced by the architectural traditions of China (ibid.: 20). These early antiquarians were captivated by the monumental Buddhist architecture on the island and as a result almost all of the archaeological focus was on architecture. This emphasis was further institutionalised with the work of the founder and Archaeological Commissioner of the Department of Archaeology in Ceylon, H.C.P. Bell (Figure 2.8).

One of the most important contributions made by Bell was his methodology, in which he divided archaeology into seven major categories: excavation, exploration, inscription work, tourism, conservation, and surveys (ibid.: 27). This systematic approach to Buddhist archaeology resulted in a number of very detailed reports. By applying scientific method to archaeological excavation, Bell was able to reconstruct the chronology of Buddhist monastic sites as well as providing detailed and scaled architectural plans and drawings of the monuments (ibid.). His systematic approach helped to standardise archaeology on the island, but fell short in providing explanations and interpretations on the material. However, Bell's approach had a lasting effect on Buddhist archaeology in Sri Lanka and it is only recently with the work of individuals such as Robin Coningham (1995; 1999; 2006; 2007) and Prishanta Gunawardena (2006; 2007; 2009), that the archaeological focus has begun to shift away from architecture towards a more holistic perspective.

2.3.2 *In situ* Conservation in the Twentieth century

At the same time as Bell was implementing his systematic archaeological methodology in Sri Lanka, the appointment of Lord Curzon as the Viceroy of India in 1899 prompted a significant change of focus in archaeology on the Subcontinent. Lord Curzon had a keen interest in archaeology and called for the preservation of South Asia's monuments, stating "thus it has come about that owing to the absence of any central and duly qualified advising authority, not merely are beautiful and famous buildings crumbling to decay: but there is neither principle nor unity in conservation or repair, while from time to time horrors are still committed that make the student shudder and turn grey..." (1898—in Roy 1953: 26). During his Viceroyalty, Curzon brought about a centralised direction and clear archaeological policy, identifying the three corner-stones of archaeological works—epigraphy, conservation, and research (Chakrabarti 1988: 120). His appointment of John Marshall as Director General of the ASI in 1902 and the establishment of the Ancient Monuments Preservation Act of 1904 abruptly changed the trajectory of archaeology in South Asia. Between the appointment of John Marshall, through Partition and the end of the British Raj in 1947, and up into the 1980s, the focus of archaeology on the Subcontinent shifted away from the recording of monuments, sculpture and the collection of artefacts, towards the excavation and conservation of monuments *in situ*.

John Marshall was appointed Director General of the ASI in 1902 on the recommendation of the British Museum (Figure 2.9). In contrast to Lord Canning's and Cunningham's directive of collecting and recording for the Archaeological Survey of India, Marshall's role as Director General was to "...secure that the ancient monuments of the country were properly cared for, that they were not utilised for purposes which were inappropriate or unseemly, that repairs were executed when required and that any restorations which might be attempted were conducted on artistic lines" (Roy 1953: 27). His main duty as Director General was to supervise all of the archaeological work of the country including excavation, preservation, repair, the registration and description of monuments and ancient remains and all other antiquarian research (Chakrabarti 1988: 123). Marshall is perhaps best known in South Asian archaeology for his excavations at Taxila and the 'discovery' of the Bronze Age Indus Valley Civilisation. However, it was his focus on fieldwork, conservation and epigraphy that has left an enduring mark. In the first decade of his appointment he set about to "re-examine some of the Buddhist sites which had already been partially uncovered, in order to coordinate the results obtained by earlier excavators and to check the often unreliable conclusions which they had drawn" (1916: 24). Marshall wanted to re-examine the previous work by Cunningham and his contemporaries, with his new scientific methodology, and excavating stratum by stratum (Chakrabarti 1988: 129). Marshall was also responsible for clearing and restoring fifty-one buildings

in situ during his tenure, representing a departure from the previous methodology of removing and collecting sculpture as objects of art. The next phase in Marshall's plan for the ASI was to begin large-scale excavations on the buried cities of antiquity, looking towards the Early Historic cities of Taxila, Pataliputra and Bhita, to gain a better perspective on the contemporary Buddhist sites (ibid.) Figure 2.10). However, Marshall's plan soon changed course with the 'discovery' of the Indus civilisation, and although Buddhist monuments were still being conserved, most of his attention was drawn towards excavating South Asia's Bronze Age Civilisation (ibid.). The conservation policies of Curzon and the scientific methodology of John Marshall became catalysts for change in the archaeology of Buddhism, moving it away from the realm of untrained dilettantes and their methods of recording and collecting, towards a more centralised, government sponsored discipline.

This agenda of conservation and re-construction institutionalised in the archaeological practices of the ASI by Marshall and Curzon had a lasting effect on the Buddhist sites of South Asia with many of the main Buddhist pilgrimage sites such as Bodh Gaya, Sarnath and Lumbini being transformed into archaeological parks. The archaeological site of Lumbini that is seen today is the result of decades of conservation and re-construction efforts at the site, beginning with General Kaiser Shumsher J.B. Rana in the 1930s. Kaiser Shumsher J.B Rana was the son of the fifth Prime Minister of Nepal, and a member of the wealthy and powerful Rana dynasty. Although not an archaeologist, at the time of his work at Lumbini Rana was Director General of the Royal Museum of Nepal (1928-1939) and of the Archaeology Department (1931-1939), as well as the Foreign Affairs Department (1932-1937). Rana's unscientific and destructive clearing of the Sacred Garden irrevocably changed the aesthetic, visitor experience, and focus of the site (Figure 2.11). Rana's excavations leveled the archaeological mound, resulting in the impression that the monuments within the Sacred Garden all appear to have been constructed in one phase, and his 'reconstruction' of the 'Sakya tank' in the brick-lined rectangular fashion of a later Hindu bathing pool is incongruous with the other monuments (Coningham and Tremblay 2013: 68). In addition, the backfill of the levelling and clearing was formed into two mounds to the north and the south of the Sacred Garden and were later confused by pilgrims for Buddhist *stupas* (ibid.).

The conservation efforts by the Lumbini Development Trust and Department of Archaeology, His Majesty's Government of Nepal in the 1970s and 1980s served to further remove any historical dimension to the site. Many of the standing remains were rebuilt based on hypothetical interpretations of the buildings which were based on fragmentary evidence and plans (ibid.: 72). Moreover, many of the materials used in the re-constructions were archaeological bricks and

brickbat recovered from old and new spoil heaps at the site and, as a result, many of the monuments at Lumbini have a uniform appearance and it has become impossible to identify or examine the earlier stages of construction (ibid.). It was during this period that the implementation of Kenzo Tange's architectural Master Plan for Lumbini caused further significant and irreversible change across the site. These changes included the cutting of the levee and water body around the Sacred Garden, dividing Lumbini into a series of planned zones, and changing the way in which the site was accessed, viewed and interpreted (ibid.). The commissioning and implementation of this Master Plan will be discussed in the following chapter, and whilst it is clear that the site was in need of conservation, the methods employed in the conservation of Lumbini throughout most of the twentieth century have led to the dramatic re-design of the archaeological site. In spite of this and similar examples elsewhere, the conservation campaign begun by Marshall and Curzon in the early twentieth century continues to be employed in South Asia and some of the most significant Buddhist sites such as Bodh Gaya, Sarnath, and Lumbini have been transformed into archaeological parks.

2.3.3 Moving beyond the Monuments

Alongside the ASI's characteristic excavation and conservation methods, the field has also seen the development of a more holistic archaeological approach. The impetus behind such a paradigm shift can be attributed to the changing faces within the archaeology of Buddhism. Whilst the ASI continues to excavate Buddhist sites in India, their impact upon the wider archaeological community is limited as many site reports are not published, and those that are have a very limited distribution. This new archaeology of Buddhism is being led by academics in universities throughout the world. This new era began in the late 1980's and early 1990's with the work of Raymond Allchin (1995), Dilip K. Chakrabarti (1995; 1998), Robin Coningham (1995; 1998; 1999; 2008; 2013), H.P. Ray (1994), and Kathleen Morrison (1995; 2007) and has continued into the present with the work of Julia Shaw (2007), Monica Smith (2005; 2007), Lars Fogelin (2006) and Prishanta Gunawardena (2009). The general themes of this new archaeological research examine the inter-visibility of sites, how monumental sites such as Anuradhapura and Sanchi interact with their surrounding complexes and hinterlands, and use minimally invasive methodologies to explore the early nature of the sites below the brick and stone architecture, in response to increasing interest in, and traffic of pilgrims and visitors to the sites. Other aspects of investigation include networks or spheres of influence, both political and ideological, and the role of Buddhism in facilitating trade as well as the roles of the monasteries in exchange and administration in South Asia.

The emergence and popularity of landscape archaeology in the wider archaeological community has had a major impact on the archaeology of Buddhism, with scholars such as Julia Shaw from UCL and Robin Coningham from Durham University looking beyond the monuments and conducting surveys in the surrounding hinterlands. These surveys investigate the ways in which the ritual and social landscapes interacted with each other in the Early Historic period, with Coningham conducting a large-scale survey of the hinterland of the sacred city of Anuradhapura in Sri Lanka and Shaw conducting a small survey of the surrounding landscape of Sanchi. Shaw's Sanchi Survey Project was designed to address several problems within the archaeology of Buddhism; primarily, the hegemony of art-historical methodologies when examining monuments and ritual sites such as Sanchi; secondly, the poor understanding of the way in which the *sangha* interacted with pre-existing social, economic and religious infrastructure; and lastly, the continuation of the discipline's reliance on texts and the lack of coordination between archaeology and text-based scholarship (Shaw 2007: 18). Shaw's work has gone a long way in redefining the role of archaeology in Buddhist scholarship as well as changing the way in which Buddhist monuments are viewed and examined, moving away from the art historical perspective towards a more nuanced and complex study of their importance and interaction in the wider physical and cultural landscape. Coningham's work both within the Citadel at Anuradhapura (ASW 2) and in the hinterland (UMOEP) has had significant impacts on both the chronology of the development and spread of Buddhism in Sri Lanka, and the role of monastic institutions in the early medieval landscape (1995; 1999; 2013). Coningham is currently working at the site of Lumbini in Nepal with the Department of Archaeology, Government of Nepal and UNESCO. The impact and methodology of Coningham's work in Sri Lanka, Pakistan and Nepal has made several important contributions to the study of Buddhism in South Asia, including the further materialisation of Buddhism, and the execution of a systematic excavation and survey methodology. The re-materialisation of Buddhist archaeology is a reaction to the institutionalisation of textual sources within the discipline, allowing the archaeology to speak for itself rather than merely supporting the textual sources (Coningham 1995). Lars Fogelin has focused on the role of ritual in Buddhist monasticism by examining the architected space and landscape. In 2000-2001 he directed a survey in the immediate area surrounding the Thotlakonda Monastery in Andhra Pradesh to determine the role of ritual in the relationships between monks living in the monastery and the laity living in the area immediately surrounding it (Fogelin 2006: 57). He argued that ritual was not the primary link between the monks and laity but that Buddhist monasteries in the Early Historic period were engaged in all of these different activities—ritual, and trade—and that all of these can be identified in the architecture, landscape and material culture of Thotlakonda (ibid.).

2.4 The Cult of Asoka and the Mauryan Empire

This chapter has already explored the ways in which textual studies and monumentality have been institutionalised in South Asian, and especially Buddhist archaeology. The following section will examine the role of the Emperor Asoka in the textual narrative, and the way in which this link has affected the interpretation of Buddhist archaeological remains.

2.4.1 The Cult of Asoka

As described above, the Emperor Asoka was brought to European awareness through the efforts of James Prinsep and George Turnour in the nineteenth century. As further inscriptions and Buddhist manuscripts were discovered and translated Asoka was increasingly presented as a champion of Buddhism complete with a conversion story similar to Constantine, with the Mauryan Empire as the driving and uniting force of early South Asian history. This is partly due to the intrinsic link between Asoka and Buddhism, reinforced by the Buddhist texts and chronicles and later institutionalised in archaeological methodology by Cunningham's search for the Asoka of the chronicles (Josh 2012: 395), and partly to the narrative itself, as the story is a familiar one, and can be appropriated and interpreted by society again and again. The chronicles tell the story of a cruel man who killed all of his brothers spare his youngest in his struggle for the throne, emphasising Asoka's ruthless nature in order to dramatise his conversion and self-reformation (Gelblum 1957: 262). His conversion to Buddhism is generally depicted as a sudden attack of conscience after conquering and killing the people of Kalinga (Thapar 1960: 44). However, it is clear from his own edicts that his conversion was not sudden or eccentric, but part of a widespread movement towards change that was occurring during this period (ibid.). All that is known of Asoka is from textual sources, his numerous pillar and rock edicts spread throughout the Subcontinent, and the Buddhist texts and the Pali Chronicles. The Buddhist sources, eager to emphasise that he was in fact a Buddhist, describe Asoka as a personification of piety, but the picture created by his own inscriptions and edicts portray him otherwise (Thapar 1960: 44). Despite these conflicting views, Asoka has remained one of the most popular and admired historical figures in South Asian, and indeed world history. In his *Outline of History* (1920), H.G. Wells wrote:

Amidst the tens of thousands of names of Monarchs that crown the columns of history, their majesties and graciousnesses and serenities and royal highnesses

and the like, the name of Asoka shines, and shines almost alone, a star. From the Volga to Japan his name is still honoured. China, Tibet, and even India, though it has left his doctrine, preserve the tradition of his greatness. More living men cherish his memory today than have ever heard the names of Constantine or Charlemagne (Wells 1920).

The 'cult of Asoka' has been particularly popular in the twentieth century. Not only were Asokan symbols adopted by Jawaharlal Nehru and the post-Independence Government of India, but both Mahatma Gandhi and Nehru were attracted to Asoka and referred to his legacy throughout their campaigns (Thapar 2012: 34). Gandhi looked to Asoka less as a historical figure, than as a role model, regarding his policy of peace, non-aggression, and cultural conquest as an inspiration for his own methods of achieving freedom from Colonial Rule (ibid.). Nehru was attracted to Asoka's rejection of violence and his religious tolerance, as a symbol of a civilised polity; that successful governance did not require adherence to a particular religion or deity (ibid.). With the rising swell of nationalism and the demand for a separate Islamic nation state during this period, these 'Asokan ideologies' found a home in a newly independent India (ibid.).

As seen in the cases of Nehru and Gandhi, Asoka has become many things to many different people. It is possible to trace the changing attitudes in the history of India through the portrayals of Asoka in the twentieth century. Vincent Smith was the first historian to write a biography of Asoka in 1904, and his perspective could be considered the culmination of colonial writing (Thapar 2012: 32). According to Smith, Asoka was "a masterful autocrat ruling church and state alike with a strong hand" (1904: 168), but at the same time a monk and a missionary (Thapar 1960: 44; 2012: 32). Franz Kern wrote a somewhat extreme portrayal of Asoka's life in his *Asoka, Kaiser und Missionar* (1956), where he tried to examine Asoka's actions by placing them within the theological background of existence both in this world and in the afterlife. Kern believed that during this period in South Asian history, it was the widespread desire of the people to become ascetics and to escape from life by other means. In this world, Asoka is depicted as a ruler who wishes to free himself of earthly ties but is conscious of his responsibilities to society (Thapar 1960: 44). Written in the same year, Gelblum ranks Asoka with personalities "like the pious king Solomon of Israel, the Muslim al-Ghazali, the author of the spiritual autobiography, great saints like Mahatma Gandhi, who strove to line up their moral ideas, and *rajasis* like Kumarapala, whose statesmanship had been spiritualised and who attempted in varying degrees to synthesise between expediency and the absolute injunctions of the human conscience" (1957: 261). Kern and Gelblum's portrayal of Asoka as a deeply spiritual and pious ruler, conflicted by his own desire to escape from the world and his responsibility to his

subjects, was not all that different from Smith's portrayal of him as both monarch and monk. In 1958, Etienne Lamotte attempted to step away from both the colonial portrayals and those of the Buddhist texts by portraying Asoka as being undoubtedly influenced by Buddhist thinking, but maintaining a distinctive and entirely separate policy as an emperor (Thapar 2012: 32). Other views emanated from the rising nationalistic movement in India with the commonly held position that Asoka was responsible for weakening India's defences by annulling the military strengths of his empire through his policy of non-violence (ibid.). Raychaudhuri writes, "Dark clouds were looming on the north-western horizon. India needed men of the calibre of Puru and Chandragupta to ensure her protection against the Yavana menace. She got a dreamer" (1923: 347). The conventional view of great rulers required them to be conquerors of both people and territory. Asoka's edicts demarcated a territory covering a major part of the Subcontinent from Afghanistan in the west to Bangladesh in the east and Nepal in the north. This was the closest that any earlier state had come to the boundaries of British India, and Asoka was accused of allowing this territory to disintegrate through his endorsement of non-violence, leading to the slogan that "Buddhism, had emaciated Hinduism" (Thapar 2012: 33). Against a rising tide of nationalism and the belief that 'India' meant 'Hindu', Asoka and his Buddhist piety became a scapegoat for the state of affairs in India. Like the archaeological trends discussed above, from the mid-twentieth century onwards, historians of ancient India distanced themselves from Indology and began to take a more multi-disciplinary approach, weaving together archaeological, epigraphical, and textual sources and moving away from the 'cult of Asoka' towards an examination of the Mauryan Empire as an imperial structure. However, the 'cult of Asoka' has not disappeared, and the omnipresence of the ancient ruler can still be seen in both the politics and culture of India. In 2001 the Bollywood film *Asoka* was released depicting the life of the conflicted emperor on a grand and epic scale. Asoka has been adopted and interpreted by scholars, politicians and religious leaders in numerous different ways. Perhaps Romila Thapar describes it best in the introduction to her work, *Asoka and the Decline of the Mauryas* (1997[1961]):

He [Asoka] appears to many people in many guises, a conqueror who forsook conquest when he saw the suffering it caused, a saint, a combination of a monk and monarch, a political genius, a king with a rare understanding of human beings—and so the images can be multiplied. The picture we have of him is encrusted with legend, accumulating layer after layer through the centuries (Thapar 1997: 1).

Almost everything known about Asoka is pieced together from a few fragmentary sources, and it is these same sources that have been used to re-construct the Mauryan Empire in the twentieth century as South Asia's first empire, centrally administered from the Ganga Plain, but stretching in territory over most of the Subcontinent.

2.4.2 The Mauryan Empire

The sources that have been used in constructing the history of the Mauryan Empire include the *Arthashastra* of Kautilya, the Asokan edicts, Megasthenes text, Pali Buddhist canonical texts, and the *Puranas* (Allchin 1995: 188). These texts should be used with caution as most of them were written after the Mauryan period. The *Puranas* only provide the bare outline of a Mauryan king list with almost no chronology or ties to outside events, and it is believed that the early texts of the Pali canon date to this period, but only in oral form and that they were committed to writing only after the Mauryan period (ibid.). As for the *Arthashastra*, some believe that it was written by the Chief Minister of Chandragupta Maurya, Kautilya (ibid.: 187) while other scholars such as Trautmann (1971) and McClish (2012) have proposed that although it is likely based on earlier material, it was written no earlier than the second century CE. Regardless of the antiquity of such textual sources, they have been instrumental in the modern construction of the Mauryan Empire. The Mauryan state described by the *Arthashastra* is defined in terms of seven constituent elements, including; the king; the council of ministers; the territory; the fortified settlements; the treasury; the forces; and the ally (Allchin 1995: 190). In his numerous inscriptions Asoka refers to himself as the King of Magadha and names Pataliputra as the capital of his state. He also makes reference to other cities as the seats of princes, appointed as regional or provincial governors, which are thus taken to indicate the headquarters of four provinces: Taxila, Ujjain, Tosali (near Orissa), and Suvarnagiri (Karnataka?) (ibid.: 198). These provinces may reflect the administrative divisions of the Empire at its height, but there has been no doubt that the Mauryan Empire was a territorially bound entity that was centrally administered and controlled. Asoka is often credited with bringing the centralising tendencies of the Empire to its peak (Gelblum 1957: 268) with his unifying policy of *dhamma*. This type of centralised imperial system was new in South Asia, and the size and scope of the imperial structure, together with the diversity of its constituents required a political form that placed an emphasis on governmental authority and machinery as well as a unifying ideology (Thapar 1960: 48). Gelblum writes that “the period preceding Asoka’s reign was one of instability and rapid political and economic changes. It was full of dynasties, the Macedonian invasion, the disintegration of smaller political units, and their amalgamation into the newly born larger ones and finally into one gigantic

empire. It is very probable that the deterioration of moral standards accompanied these developments” (1957: 268). This passage highlights two major issues within the archaeology of South Asia: that preceding the Early Historic period there was a ‘Dark Age’, beginning with the collapse of the Indus Civilisation and ending with the Mauryan Empire; and that there was a ‘moral vacuum’ created by this instability to which Asoka’s ideology of *dhamma* filled the void, unifying the Mauryan Empire and creating cultural uniformity (Thapar 2012: 18). Regardless of the fact that this notion of a centrally administered and culturally uniform Mauryan Empire is constructed almost exclusively from one source, the *Arthashastra*, it has persisted to be the dominant view by archaeologists and historians alike. However, recently scholars such as Thapar and Fussman have begun to reassess both the archaeological and historical evidence and posit new theories about the cultural uniformity and administrative power of Asoka and the Mauryan Empire.

Fussman (1988) acknowledged that the Mauryan Empire was far too large to be administered centrally, and instead proposed a series of linked semi-independent units, similar to the pre-Mauryan *Mahajanapadas*. Fussman’s approach allowed for regional variations in the material culture of the Empire and the presence of different scripts and languages (ibid.). Thapar’s new model of the metropolitan state acknowledges the agency of the conquered territories incorporated by the Mauryan state, and similar to Fussman, recognises the diversity and disparities between the different cultural traditions, claiming that “the method of conquest and the resistance to it varied, requiring subsequent adjustments in systems of governing and in cultural expression...this required new cultural articulations but did not necessarily aim for cultural uniformity” (2012: 18). Thapar cites evidence of this diversity from both the textual and archaeological evidence, and whilst this multidisciplinary approach is a step forward, the ‘metropolitan state’ is still one that “spatially controlled virtually the entire Subcontinent and in addition included eastern Afghanistan. The empire was an area of multiple and diverse cultures, speaking a variety of languages, reading a variety of scripts, and varying immensely on forms of worship, in economic patterns and in social organisations” (2006: 297f). This notion of a territorially bound empire still persists, but Thapar has shifted the question to “how was this diversity to be welded into an empire?” (2012: 18). She suggests that there was a relatively centralised administration in the Ganga Plain with its epicentre at Magadha, which differs from the less centralised administration in other areas such as Gandhara, Saurashtra, Kalinga, and Karnataka (ibid.: 20). The diversity in administration reflects the diversity in socioeconomic conditions. The agricultural economy of the Ganga Plain brought about the growth of towns and significant commercial activities along the river trade route, which together produced a substantial revenue (ibid.: 20f). This core area is known as the ‘metropolitan state’ and seems to have been demarcated by the location of the Asokan edicts. This is where the Mauryan cultural

traditions were established, with its history of kinship and caste society distinct from other areas of the Empire where these cultural traditions were less well established (ibid.). Thapar then suggests that the core areas in the fringes of the Empire were less centrally administered, due to the difficulties of rapid communication, and the economies of these areas relied on local production and commerce. This is certainly the case for Gandhara as it was the nexus with West and Central Asia. As for Karnataka, the local gold mines were an important resource, and the trade and communication networks along the east coast enabled commerce with the north (ibid: 21). This 'metropolitan state' model seems to be able to explain the diversity in the administration, but still adheres to the belief that the Mauryan Empire was the agent of change, with "an attempt to universalize...in the propagation of the social ethic as a new form of governance moving beyond the identities of clan, caste, or sect. It was an attempt at propagating what was thought to be a common way of life, a believed past and a universal ethic" (ibid.: 22). Whilst this administratively and economically decentralised model is a step forward from the previous belief that the Mauryan Empire was a monolithic state with Asoka's Buddhism as its unifying ideology, it is still important to note that this is based on the same sources as before. The absence of a comparison of the archaeological evidence and the literary evidence of the channels of communication and control means that the notion of the state as the primary agent of change continues to be the dominant viewpoint (Ray 2012: 67).

There is little archaeological evidence to support state control over religious channels of communication, and this is coupled with an increasing reiteration of diverse concepts of kingship throughout the Subcontinent (Ray 2012: 67). Ray has suggested that the unifying factor of Buddhism was provided by travels undertaken by Buddhist monks and nuns, rather than officials of the Mauryan Empire, however she clearly points out that "Buddhism did not spread in a void, but had to contend with diverse local religious practices and traditions" (ibid.: 69). Thus, in order to understand the spread of Buddhism during the Mauryan period, the overarching Buddhist *dhamma* of the edicts needs to be contrasted with the diverse remains evident in archaeology—the unity at the macro level needs to be contrasted with the presence of a diverse populace at the micro level. She also calls for the Asokan inscriptions to be studied within their regional contexts, highlighting the complex socio-political landscape in which they are situated. Rather than viewing the monuments as symbols of imperial power, the edicts were indicators of cultural and social identity and need to be studied in their local historical contexts (ibid.: 70).

2.5 Conclusions

It is clear that the textual and material fields of Buddhist scholarship are closely linked, but that interdisciplinary influence is a one-way affair. The textual studies of Hodgson, Turnour, Csoma and

others have shaped the way in which the archaeology of Buddhism has been studied and carried out in South Asia, but archaeological practice has, until recently, had minimal impact upon the interpretation of the textual sources. The nineteenth-century promotion of the Emperor Asoka as the champion of Buddhism was in part a reaction to contemporary anti-Brahmanical movements, and offered a vision of a unified Buddhist South Asia held by the Mauryan Empire, utopian in its ideals and culturally superior to everything that came after. The 'pure' Buddhism described by European scholars and thinkers served to reinforce these views and generations of archaeologists have been searching for evidence of this idealistic state. The Mauryan Empire has been seen by scholars and politicians alike as a golden age of South Asia, a territorial empire closely following the boundaries of the British Raj at its apogee and unified by Buddhism. Recent scholarship, both historical and archaeological, is re-examining this narrative, but archaeological evidence is still not given the same weight as textual evidence, and how things appear on the micro-level is not often translated to the macro-level. These issues will again be picked up in later chapters through the discussion of both the site of Lumbini and broader discussion regarding the Mauryan Empire and the spread of Buddhism.

This chapter has reviewed the existing literature on Buddhist archaeology, and identified the key themes and trends in the history of Buddhist textual scholarship and the archaeology of Buddhism, highlighting the intrinsic link between the two sources. Furthermore, this review has established the primacy of the textual sources in the archaeology of Buddhism, as well as the way in which Asoka and the Mauryan Empire have been portrayed as the propagators of Buddhism in the textual sources and studies from the past century. The chapter has therefore fulfilled Objective One of this thesis, and part of Objective Two. The following chapter will explore alternative perspectives of the Mauryan Empire such as Romila Thapar's metropolitan state model (2000; 2012) and Monica's Smith's networks model (2005; 2007) in order to complete Objective Two, before building upon the themes outlined in this literature review and detailing the methodology of this thesis.

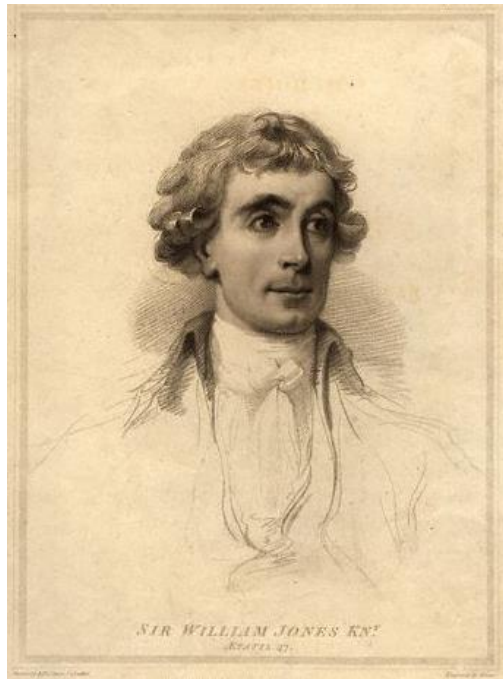


Figure 2.1. Sir William Jones

(Image source <http://www.npg.org.uk/collections/search/portraitLarge/mw57053/Sir-William-Jones>)



Figure 2.2 Brian Houghton Hodgson

(Image source <http://www.bilder-aus-nepal.de/Pages/Geschichte/Hodgson.html>)



Figure 2.3. Alexander Csoma of Koros

(Image source <https://www.uni-goettingen.de/en/alexander-csoma-de-k%C3%B6r%C3%B6s-1784-to-1842/104013.html>)



Figure 2.4. Sir Alexander Cunningham

(Image source http://asi.nic.in/asi_aboutus_history.asp)



Figure 2.5. The archaeological mound at Lumbini in 1899 (from Mukherji 1901)

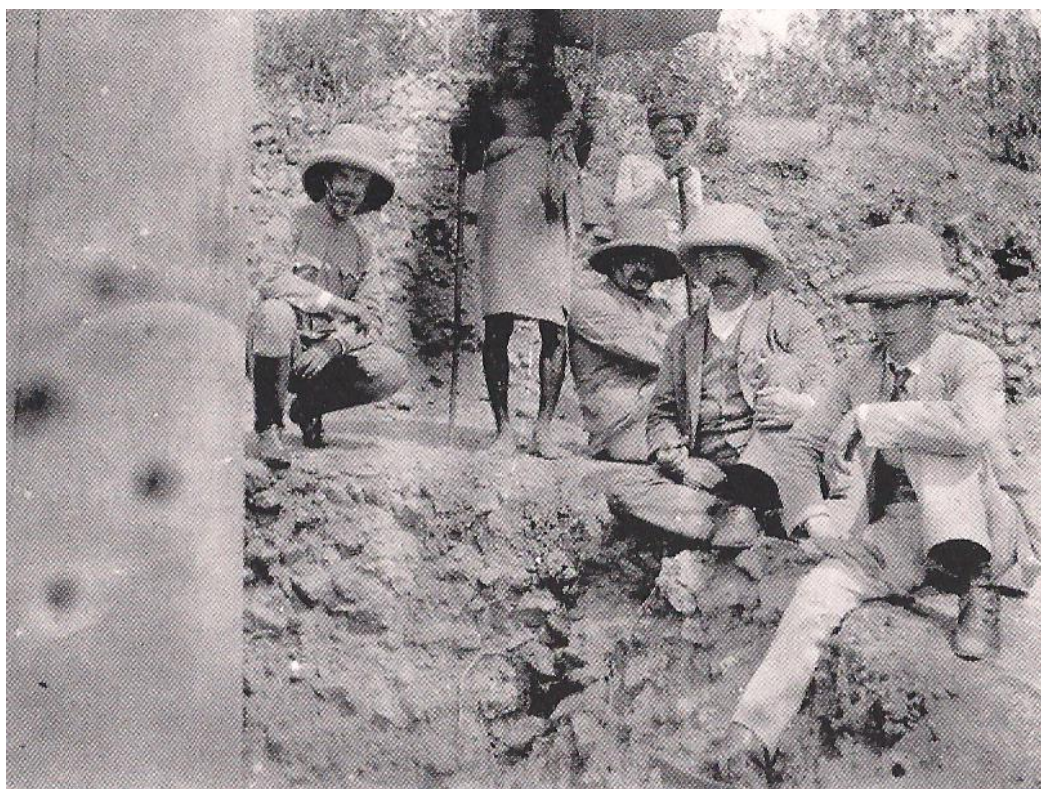


Figure 2.6. The excavation of the pillar at Lumbini in 1899 (from Allen 2006: 189).



Figure 2.7. Debala Mitra

(Image source http://bengalarchaeology.org/research_personalities3.html)



Figure 2.8. H.C.P. Bell, appointed Archaeological Comissioner for the Archaeological Survey of Ceylon in in 1890 (from Wijesekera 1990: xix).

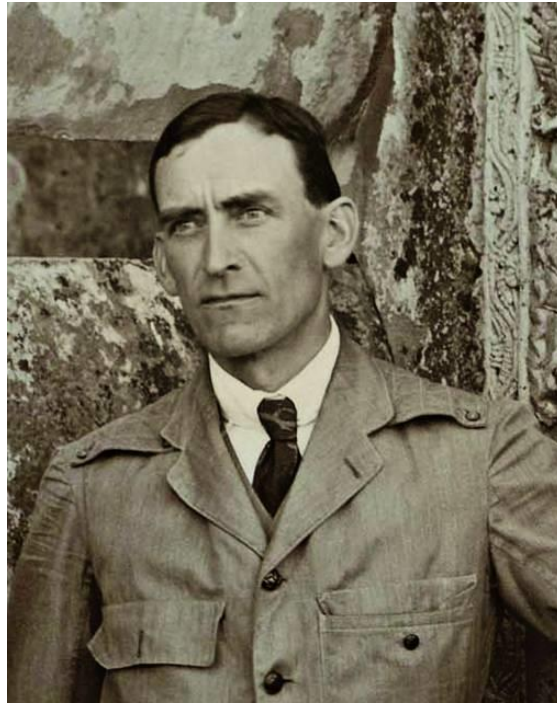


Figure 2.9. Sir John Marshall, appointed Director General of the Archaeological Survey of India in 1902

(Image source <http://betterphotography.in/perspectives/great-masters/excavating/1827/>)



Figure 2.10. Excavations at Taxila (Sirkap). From the Marshall photograph collection, held at the Oriental Museum, Durham University (Volume 23 #1787).

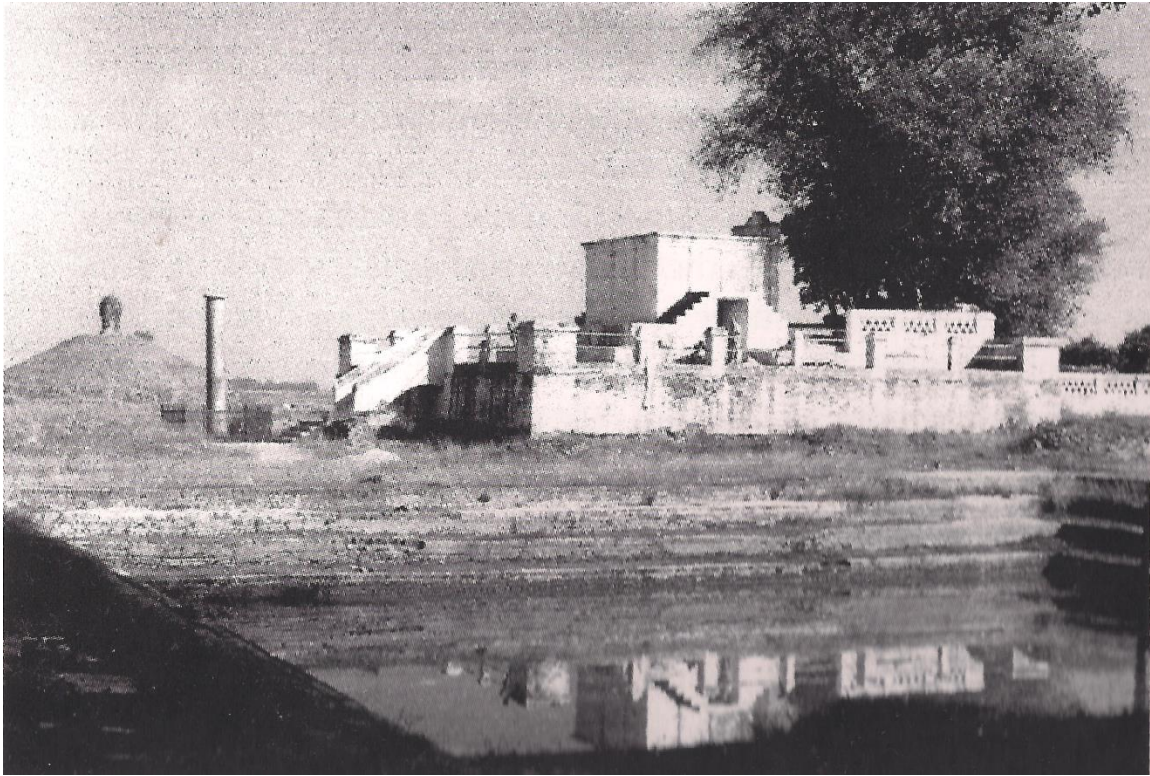


Figure 2.11. The Maya Devi Temple and Asokan pillar at Lumbini after the Rana's clearing activities in the 1930s (from Allen 2006: 232).

Chapter 3:

Methodology

3.1 Introduction

As described in Chapter One, the aim of this thesis is to test the scholarly and physical ‘Mauryan horizon’ that has affected archaeological methodology in South Asia, by demonstrating challenges in our current understanding of the relationship between the Mauryan Empire and the spread of early Buddhism. This thesis will demonstrate the methodological problems of unquestioning reliance on textual sources in archaeological/historical research, and highlight the effects of this approach. Having established the primacy of the textual sources and the institutionalisation of architecture in the archaeology of Buddhism and the Mauryan Empire in Chapter Two, this chapter will explore further details of the thesis methodology, including archaeological models for the administration and authority of the Mauryan Empire, current models of religion and the identification of specific religions in the archaeological record, and the use of archaeological ‘markers’ of the Mauryan period and of early Buddhism.

Section 2.4.2 of this thesis provided a brief introduction to the two models of Mauryan imperial authority and administration proposed by Thapar and Smith, and which will be tested in Chapter Seven against the evidence from the main case study of Lumbini as well as the five other case studies described below. Section 3.2 provides a more detailed review of these models, and explores the predicted and inferred archaeological evidence that will be looked for and tested in the assemblages of the case study sites. Having established the hypothesised evidence for each model of the Mauryan Empire, Section 3.3 will outline the archaeological evidence that is typically and currently used to identify Mauryan period occupation at sites throughout the Subcontinent, and discuss the challenges with their identification and chronologies. This analysis is based on the review and synthesis of published archaeological materials and excavations at a range of sites. Sections 3.4 and 3.5 will follow a similar structure, introducing existing models of early Buddhist propagation, and moving onto a discussion of the current methodology for the identification of Buddhism in the archaeological record, using examples of potential ‘markers’ of Buddhism based on published excavation data.

The discussion and analysis of these models and markers will be followed by an explanation of the ways in which these factors will be tested and examined in this thesis against the archaeological record. Section 3.6 will review the history of archaeological investigation and conservation at the main case study site of Lumbini, and the ways in which the site has been altered during this process. An understanding of this history is crucial for the testing of the markers at Lumbini, since the site and its monuments have been significantly altered by the excavations and by the actions of certain investigators, actions which may affect the reliability of certain types of evidence and indicators. This review will then be followed in Section 3.7 by a review of the methodology used in this thesis for testing for the presence or absence of archaeological markers of early Buddhism and the Mauryan period, using the excavated archaeological assemblage of the 2011-2013 investigations at Lumbini. Section 3.8 will introduce the other case study sites to be examined in Chapter Six, and the methodology for the analysis of the presence or absence of relevant markers at these sites using the limited datasets published in articles and excavation reports.

3.2 Models of Empire

As described in Chapter One, the discussion and analysis of ancient empires across the world has been hampered by a reliance on potentially biased textual sources and by the limited contribution of archaeological fieldwork within the debate. Archaeological surveys of empires have of course been limited by the scale of the polities and of the amount of work required, and it is only following the development of more flexible models of imperial administration that archaeological evidence which runs contrary to the established narrative has begun to have an impact. As discussed in Section 1.2.5 it is now generally accepted, for example, that in spite of the narrative of imperial edicts and Greek and Roman textual sources, the Achaemenid Empire is likely to have utilised a wide variety of administrative controls and power structures, and to have tolerated or ignored the continuation of many local and regional cultural customs. This adaptability is a response to the difficulties involved in maintaining tight and homogenous control over a wide region, and the negative impact that could have been incurred by imperial interference in local customs (Anderson 2010; Kuhrt 2001; Yoffee 2005). The same logic may be applied to the Mauryan Empire, which administered control over a large empire across the Subcontinent, but which appears to have had little impact upon the regional and local material cultures under its authority. As the aim of this thesis is to review the scholarly and physical Mauryan horizon, several different models for the organisation and authority of the Mauryan Empire were introduced in Chapter Two. These models will be discussed here in terms of

their predicted impact on material culture and architecture, and therefore their visibility in the archaeological record.

The traditional model used in the discussion of the Mauryan Empire predicts a large territorial empire, bounded and marked by the geographical extent of the Asokan edicts and pillars, and centrally administered from Pataliputra in the Ganga Plain (Thapar 1960; 1997; Allchin 1995) (Figure 3.1). More recent models from Fussman, Thapar, and Smith question the notion of a centrally administered empire and offer more nuanced models that propose a disassociation of administration and power. Fussman's model draws attention to the regional variability in the material culture and language of the Empire, hypothesing an organisation based on a series of linked but semi-independent units similar to the earlier *Mahajanapadas* (1988). Thapar's metropolitan state model takes this decentralisation one step further and, similar to Stanley Tambiah's 'galactic polity' model (1976), proposes a centre-periphery relationship. Within this model the capital (the metropolitan state) is surrounded by a circle of provinces (the core) ruled by centrally appointed governors, with an outermost ring of more or less independent tributary polities (the periphery) (1976: 112; Coningham and Young in press). Smith's model takes this decentralisation even further and proposes a node-and-corridor model of political, social and economic interactions based on existing networks of communication and exchange (2005; 2007). The following section will expand and elaborate on the two models proposed by Thapar and Smith and the evidence from the case studies in this thesis will be used to test the feasibility of these models.

3.2.1 Romila Thapar's Metropolitan State Model

Romila Thapar has argued that the inclusion of differentiated political and economic systems in empires allows them to be classified as a complex form of the state, and that they should therefore be studied as a state rather than as a separate class under the term 'empire' (2000: 465). As discussed in Chapter Two, a metropolitan state historically evolves from a small kingdom which then becomes the centre of an empire as is the case with Magadha and the Mauryan Empire (ibid.). The rest of the Empire could then be separated into core and peripheral regions. Core regions usually consist of other existing states or kingdoms such as Gandhara with the cities of Taxila (Bhir Mound) and Charsadda as its regional capitals; regions of incipient state formation such as Kalinga and Saurashtra; or they were existing centres of exchange such as Ujjain and Amaravati (ibid.). Peripheral regions are often located on the intersections between rich agricultural belts, and are primarily rich in some natural resources which supply the core and metropolitan areas. A large part

of the Peninsula and some parts of the northern Subcontinent would have constituted peripheral regions in the Mauryan Empire (ibid.) (Figure 3.2). This metropolitan state model is not based on ritual or ideological control, or on the initiative or agency of local communities, but on the control by the single state over the territory claimed. The form of control would vary based on the resources being tapped and the regional administration involved in obtaining these resources and revenues (ibid.). The function of such a state when seen from the upper levels or macro-level would suggest a highly centralised and uniform administration geared to the requirements of the metropolitan state, but when seen from the lower or micro-level it would be far more regional and diverse (ibid.: 480). The fixation with uniformity in empires is reflected in the symbols at the macro-level, the most obvious symbols being monuments, which encapsulate both the authority of the state and the marker of the state. However, there is a conspicuous absence of state monuments outside Pataliputra and the Asokan edicts and inscriptions. There are no structures that have been identified as Mauryan at any of the provincial capitals including Taxila, nor are there any indicators at other settlements where inscriptions have been found (ibid.). Asoka has been credited with the construction of Buddhist monuments at almost every important place of worship, even though the two Asokan edicts which refer to building work only claim responsibility for limited repair and reconstruction work, and there is very little archaeological evidence to identify these monuments as Mauryan (ibid.). If these structures were built, they must have been considerably simpler and ephemeral in their design and building materials than previously believed. Within this metropolitan state model of the Mauryan Empire, Thapar describes the cultural norm of the Mauryan state as being the culture essentially of the Middle Ganga Plain. The core and the peripheral regions would therefore preserve their own regional traditions and culture, but the ruling elite would have shared or been aware of a common culture, language, and to some degree religion all deriving from the metropolitan state (ibid.: 483). This model does take into account the regional cultural diversity in the archaeological record and will be useful in looking at several different types of sites in several different regions of the Mauryan Empire.

3.2.2 Monica Smith's Networks Model

It is evident that the study of the Mauryan Empire has been derived and influenced by Alexander Cunningham's initiatives and the textual bias and locative style of archaeology that he institutionalised in South Asian scholarship, but recently Monica Smith has suggested a new model for the Mauryan Empire that marks a distinct separation from these previous centralising and unifying notions. Smith criticised what she terms the 'blob-like' model of territorial bounded states

or empires, as the presence of boundaries implies a certain level of cultural cohesion, administrative effectiveness and bureaucratic control (Smith 2007: 28). Smith recognised the inherent authority of maps in depicting states and territories, stating that “the visual stimulus of a map can be more powerful than the scholarly text that accompanies it” (2005: 832) and “these depictions are unwittingly guiding our expectations for ancient human behaviour because the presence of boundaries and the application of the shaded overlay implies a certain level of cultural cohesion, administrative effectiveness and bureaucratic control” (2007: 28). This idea of a territorially bounded state is so hegemonic that it is difficult to think otherwise, but it is an entirely historically created condition which dates back to seventeenth century Europe (Smith 2005: 834). Similar to the study of Buddhism, this territorial definition for states and empires creates a static and homogenous picture, implying a consistency and stability throughout time. This is again reinforced by historical documents in which political leaders utilise the idea of a controlled and homogenous landscape as part of an ideology of domination (ibid.: 835). These territorial states are usually identified with a powerful ruler, such as Cleopatra, Montezuma, or Asoka. Monumental inscriptions in the name of such rulers serve as fixed place markers of the extent of the state or empire in the landscape. As previously discussed, the strength of the written word makes these textual sources a particularly strong anchor for the interpretation of state level authority (ibid.: 836). The success of these charismatic rulers is predicated in the management of the hundreds of individuals employed to conduct the quotidian business of taxation, infrastructure, ritual performances, military actions etc. (ibid.: 835). It is these actions that leave a trace in the archaeological record, serving as the basis for mapping the locations of ancient bureaucratic control. However, it is not always easy to identify these indicators, and whilst some artefacts may be considered ‘elite’, signifying a political and cultural link between sites, perceptions of ‘luxury’ in the ancient world may be different from our modern perceptions. In addition, it is well documented that artisans copied ‘imperial styles’ to suit local tastes, and the resulting distribution of these ‘imperial artefacts’ does not reflect imperial domination but evidence of networks of communication (ibid.: 838). Therefore our understanding of ancient as well as modern states can be improved through the use of a network model of analysis and depiction (Smith 2007: 29). A network model would enable archaeologists and historians to examine the mechanisms developed to manage the inherent economic, social, and political challenges to the imposition of state authority (Smith 2005.: 838). A spiky node-and-corridor model of political, social, and economic interactions characterises the workings of a state more effectively than the prevailing ‘blob-like’ territorial model. Rather than looking at the conquest and expansion of empires as merely acquiring more territory and resources, Smith’s model recognises that “states expand when they take over networks created by others and collapse when their networks of

interaction are broken” (ibid.: 838) (Figure 3.3 and 3.4). As previously mentioned, the Asokan inscriptions have served as markers for drawing the ‘borders’ of the empire and the historical impact of Asoka as a religious leader has solidified the idea of a large, homogenous, and unbroken Mauryan polity (ibid.: 842f). However there is very little evidence of state-level infrastructure under the Mauryans, and aside from the way-stations mentioned in the Asokan inscriptions, there is no evidence of formal road systems or communication networks. Excavations at sites such as Pataliputra have uncovered substantial structures, specifically a long wooden palisade, but in general the archaeological evidence is at odds with the manner, extent and effectiveness of state-level control and bureaucracy of the Mauryans (ibid.: 843). A network model can generate a more robust view of how such a vast and diverse polity may have functioned in the absence of a strongly centralised bureaucracy (ibid.). Both Thapar’s Metropolitan State and Smith’s node-and-corridor network hypothesis will be tested against the case study of Lumbini, the birth place of the Buddha, and in particular against the work of the 2011-2013 Durham University led UNESCO excavations in Chapter Seven.

3.3 Identifying Mauryan Markers in the Archaeological Record

As described in Chapter Two, there is very little archaeological evidence that can be attributed to the Mauryan Empire. If the Mauryan Empire, particularly under the leadership of Asoka, was such a large centralised and territorial entity, as it has been described by many for the last hundred years, it seems unlikely that there should be so little evidence of it or its works. There is no existing literature on the identification of Mauryan sites, but it appears that most of the sites were either identified in the nineteenth and early twentieth centuries based on the presence of Asokan edicts, Buddhist *stupas*, or through the use of textual evidence. As described above, there is very little archaeological evidence of any Mauryan structures at any of the administrative centres or regional capitals within the Empire, in fact the only evidence that has been cited for Mauryan structures outside Pataliputra is at Buddhist sites, and as will be discussed below these identifications are very tenuous. To date there is only a single large-scale public works project that has been attributed to the Mauryans, the dam on the Sudarshan Lake at Girnar in Gujarat (Thapar 2000: 477). This identification was based on an inscription from a later Sunga period repair and reconstruction of the dam (Ray 2012: 84). Artefacts associated with the Mauryan period are generally thought to be part of the Middle Ganga culture that existed previous to the Mauryan Empire and continued through to the early first millennium CE. The Mauryan signature of many of these artefacts is not easily discernible nor do the artefacts from the limited excavations conducted so far point to any major new colonies being

established at this time (ibid.: 486). Using dynastic terms such as 'Mauryan' to define period ceramics and artefacts forces a false perspective on the issue, making it seem as if the Mauryan Empire was responsible for the introduction of the artefacts to accompany the dynasty. The only concrete material evidence of the Mauryan Empire is the Asokan pillars and edicts and there has been a significant amount of research on both the construction of the pillars themselves and the interpretations of the inscriptions. There is a growing amount of research on the placement of the inscriptions and the routeways through the Empire (Chakrabarti 2010). However, as described in Chapter Two, the edicts have to be studied both regionally and then more widely in order to determine how they fit into the regional landscape and the Empire as a whole (Ray 2012: 70).

One of the biggest methodological challenges with researching the archaeological evidence from the Mauryan period lies in the discourse. As mentioned in Chapter Two, the discovery of the Bronze Age Indus Valley civilisation changed the trajectory of South Asia archaeology away from Buddhist sites towards a better understanding of the prehistory of the Subcontinent. However, the same research agenda that originated in the eighteenth and nineteenth centuries was still in practice—investigating specific sites to fill in gaps in the historical record, especially the gaps between the Indus Valley culture and the Early Historic period (Menon 2008: 19f). Whilst this methodology has given archaeologists a better understanding of the Chalcolithic and Iron Age in parts of South Asia, there are numerous incidents and excavation reports of sites with continuous sequences of occupation from the Chalcolithic through to the Early Historic period or later, where the focus appears to have been on the former with the later almost entirely neglected (ibid.). Unfortunately, this method of excavating a site and looking specifically at a certain phase or period (usually Chalcolithic or Iron Age in the Ganga Plain) means that the transitional phases and the Early Historic phases are often overlooked. This neglect is due in part to the textual bias inherent in the study of the Early Historic period and the Mauryan Empire. In addition to this neglect of the Early History phases of sites in the Ganga Plain, there is also a separation between the excavation of Early Historic or 'Mauryan sites', and Buddhist sites. The description of Early Historic sites in excavation reports has also proved to be quite difficult as different descriptions are used for different types of archaeological finds, with artefacts often being described dynastically, as in Mauryan terracottas, whereas ceramics are often described as belonging to the Northern Black Polished Ware phase or the Painted Grey Ware phase. The dynastic descriptions make it seem as if the artefacts changed with fortunes or that each dynasty was responsible for a particular innovation, neglecting the transitional phases (ibid.: 29). Also, by describing the ceramic in terms of early or late Northern Black Polished Ware phases, there is a separation with the rest of the archaeological assemblage, and this again associates a certain culture with a single kind of elite ceramic ware, thus neglecting the transitional phase again.

It is necessary at this point to define the archaeological indicators that are typically used to identify the Mauryan period once a site has been located, other than by the use of absolute dating, which remains rare. Historian Romila Thapar who is noted for her integration of archaeological and textual material in her work stated that “there is a surprising lack of evidence associating Mathura with the Mauryan period, other than from excavations. There are no Asokan inscriptions in the vicinity which is admittedly negative evidence, but nevertheless telling. Archaeological evidence suggests a transition to urbanism during this period and it is therefore possible that some inscriptional evidence may yet appear” (2000: 404). This statement shows the overwhelming reliance on the Asokan inscriptions as markers for Mauryan occupation at a site, but also demonstrates the assumption that ‘Mauryan’ means ‘urban’. According to the excavation report, the Mauryan phase at sites such as Katra Kesavadeva in Mathura, are marked by the transition from rudimentary structures to well-defined buildings of fired bricks and all the appurtenances of urban living in the form of floors, walls, drains, and ring-wells, as well as terracotta figurines associated with this period (ibid.: 405). The excavations at Sonkh reveal a similar sequence with earlier occupation represented by postholes and wattle-and-daub, the Mauryan phase represented by a better quality of mud plaster to begin with and at a later stage a change to burnt brick architecture. The artefacts traditionally associated with the Mauryan period are NBPW, terracottas of a characteristic Mauryan design, silver punch-marked coins, and uninscribed cast coins (ibid.: 406). The markers of Mauryan period occupation extrapolated from published excavation reports and archaeological interpretations include urban features such as brick-built architecture, fortifications, ring-wells, drainage, and roads; ‘elite’ artefacts such as NBPW and new ceramic forms such as pear-shaped vases; punch-marked and uninscribed cast coins; terracotta figurines and ring stones; and most importantly the Asokan pillars and edicts. The following sections describe these typical archaeological markers, and the challenges associated with the use of these markers.

3.3.1 Asokan Pillars and Edicts

The primary indicators of Mauryan sites are, and have always been, the Asokan pillars and rock edicts spread throughout the Subcontinent. Despite this seemingly indisputable evidence, there are a number of issues with the use of these inscriptions as markers of Mauryan sites. One of the biggest issues is the removal of the pillars such as those found at Niglihawa Sagar, Fatehabad, Hisar, Topra, and Allahabad from their original contexts (Falk 2006; Coningham and Young in press). The only known Asokan inscription from the site of Taxila, thought to be one of the principle cities of the Empire, was found on an octagonal memorial pillar of white marble built into the wall of a structure

in the city of Sirkap, which dates from the first century CE (Marshall 1951: 164; Falk 2006) (Figure 3.5). The removal of these pillars and edicts occurs over several different periods in history, but once they are no longer *in situ* it is difficult to look beyond the obvious symbolism of imperial power and examine the complex socio-political landscape in which they were originally situated (Ray 2012: 70). There are also a number of uninscribed pillar and capital fragments that have been identified as “non-Asokan” by Falk and have therefore been attributed to a later period (2006: 225; Coningham and Young in press). Falk’s dismissal of these uninscribed fragments highlights the importance placed on the inscriptions themselves and not necessarily the archaeological value of these monuments.

3.3.2 Urban forms

The identification of Mauryan sites, or at least sites with Mauryan occupation, is inherently linked with the presence of Asokan edicts and inscriptions, and Early Historic urbanisation. As described in Chapter Two, there is very little archaeological evidence for the Mauryan Empire, with most of what is known coming from epigraphical and textual sources. Apart from the edicts and inscriptions the most common method of identifying Mauryan occupation has been an assessment of urban form, and more specifically the urban form described in the *Arthashastra* (ibid.). Despite the description in the *Arthashastra* however, there does not seem to be much in the way of standardisation of the urban form in the Mauryan period. Most of the identified urban sites are fortified and show some level of planning, but much of this infrastructure dates to at least the sixth century BCE and can be attributed to the various *Mahajanapadas* that predated the Mauryan period. The pre-Mauryan urban sites of Kausambi, Sankissa, Sravasti, and Ahicchatra in the Ganga Plain all vary in shape and plan, with Kausambi an irregular rectangle; Sankissa a circular plan; Sravasti a crescent shape; and Ahicchatra a triangular form (ibid.: 206). There are only two examples of regularly planned Mauryan settlements, Sisupalgargh and Bhita. The site of Sisupalgargh is particularly interesting as it is laid out in a 1.1 kilometre square with indicators of two gateways on each side (Coningham and Young in press). Outside of the Ganga Plain there is even less standardisation in urban form with the sites of Charsadda and Taxila, the twin capitals of the old *Mahajanapada* of Gandhara, where both Wheeler and Marshall lament the haphazard and sporadic construction of the cities (Marshall 1951: 19; Wheeler 1963: 30) (Figure 3.6). Wheeler states that the mud-on-cobble foundations of the Mauryan period were crowded and did not display any evidence of formal planning (1963: 30). Allchin wrote that further evidence on the structure of the Mauryan Empire could be obtained by plotting the sites of the Asokan inscriptions, noting their proximity to archaeologically recognised major settlements

of cities datable to the Mauryan Period, but 60 years later the new identification of Mauryan occupation is still linked almost exclusively with these edicts and inscriptions (1995: 198).

3.3.3 Monuments

The use of the term 'brick horizon' is based on the often cited link between Asoka and the construction of a series of Buddhist monuments. This has become synonymous with the narrative of growing urbanisation under Mauryan rule. In spite of this narrative, aside from the Asokan pillars and the pillared hall at Kumrahar, there is very little monumental architecture that can be attributed to the Mauryan Empire. Scholars have observed that the only real evidence of monumental Mauryan architecture is religious rather than secular in nature (Allchin 1995: 240). Although there is very little reference to the building of religious monuments in the *Arthashastra*, Asoka has been credited with the construction of numerous *stupas* at Buddhist sites throughout the Empire. As will be described in more detail in Section 3.6.1 below, the *stupa* is one of the most prolific and resilient of the Buddhist monuments in South Asia and it is thought that the foundations of many of these monuments date to the reign of Asoka. According to the accounts of the Chinese pilgrims, Faxian (Legge 1886) and Xuanzang (Beal 1869), Asoka personally constructed 84,000 *stupas* across his Empire, but once again the archaeological evidence is at odds with the textual narrative. Whilst there are several *stupa* sites that claim a Mauryan foundation, the dating of most of these monuments is problematic. Many of these monuments, such as the Dharmarajika *stupa* at Taxila (Figure 3.7), and the *stupa* at Sanchi (Figure 3.8), are thought to date to the Mauryan period based entirely on the textual sources and architectural typologies based on brick size created in the nineteenth century (Marshall et al. 1940; Marshall 1951). There is one example of a chronometrically dated Mauryan period *stupa* from the site of Gotihawa in the Nepal Terai (Figure 3.9). This *stupa* is significant for many different reasons as will be discussed in Chapters Five and Six. Despite the textual evidence from both the *Mahavamsa* and the Chinese Pilgrims' accounts, at present there is very little securely dated archaeological evidence to support this Mauryan construction horizon at Buddhist sites in South Asia. One of the biggest issues in identifying Mauryan period *stupas* is that they are engulfed in post-Mauryan reconstruction and therefore must be excavated to identify the foundations, but the legal conservation and protection of these monuments means that in spite of the potential gains in knowledge to be made by excavation, investigation below this assumed Mauryan 'brick horizon' is extremely rare. The building campaign described by the texts is so hegemonic that even the evidence from the Asokan inscriptions is overlooked, as surprisingly none of the inscriptions claim the building of new *stupas* but only the repair and reconstruction of a couple (Thapar 2000: 408).

3.4.4 Northern Black Polished Ware and the Ceramic Assemblage

The use of Northern Black Polished Ware as a Mauryan marker is one of the most common and the most problematic indicators of Mauryan period occupation at a site. Northern Black Polished Ware (NBPW) is a fine ware potted on a fast wheel, with very thin walls and a highly glossy surface which can easily be distinguished by the quality of its manufacturing technique (Sharmin and Okada 2011: 49; Verardi 2007: 249). The well-levigated clay is fired at a temperature of 950°C and the surface colour of NBPW can range from coal-black through steel-grey or silvery to golden (Lal 1955:51). Its glazed appearance is due to high and consistent firing temperatures, as well as the enrichment of the slip with iron and potassium. NBPW is a luxury ceramic found throughout the Subcontinent, and is generally believed to have originated in the Ganga Plain with an early phase between 550-400 BCE, a middle phase between 400- 250 BCE and a late phase which ended c. 100 BCE (Erdosy 1995: 105). It is often associated with the Mauryan period as its distribution seems to follow the geographical extent of the Mauryan Empire and the time period associated with it (Erdosy 1995: 75). NBPW has been frequently described as 'deluxe' tableware (Lal 1955: 15) mostly intended for elite consumption, as indicated by the limited number of forms and the fragments of those repaired with copper rivets, fillets or pins (Sharmin and Okada 2011: 50). It has a wide distribution found in various regions in modern day Bangladesh, India, Pakistan, Nepal, and Sri Lanka; extending from Udegram (Pakistan) in the North, Anuradhapura (Sri Lanka) in the South (Coningham 1999), Prabhas-Pathan (India) in the west, and Wari-Bateshwar (Bangladesh) in the east (Haque et al. 2001).

There are several issues with the use of NBPW as an indicator of Mauryan period occupation. Dating of the ceramic ware has been varied over the past century of inquiry, in part because the chronology of the ware is so broad. There are also issues with the identification of NBPW at archaeological sites. In Roy's 1983 synthesis on the ceramic ware, he identified two distinct phases of NBPW and five different fabrics of monochrome NBPW as well as recognising Bi-chrome NBPW as belonging to the same tradition (1983: 198ff). NBPW was first identified by John Marshall at Bhita in 1910, where he described it as a "fine black lustre ware with highly burnished surface" (1912: 141). Marshall estimated a date of c. 800 BCE for the ceramic from Bhita and later discovered the same ware in the lower levels of the Bhir Mound at Taxila (Roy 1983: 94). In 1956 Deva and Wheeler dated the NBPW found at Taxila to a period ranging from the fifth century to the early part of the second century BCE, with its apogee in the fourth century BCE (ibid.). At Hastinapura, Lal dated the NBPW phase (III) from c. 600-300 BCE and at Kausambi, Sharma dated the NBPW phase (III) to 605-45 BCE, both recognising that the Ganga Plain was the origin point for the ware and that its subsequent spread to adjoining

areas such as Taxila must have taken some time, positing that NBPW was first introduced in the North West region at about 525 BCE (Sharma 1960: 23). However, Wheeler on the basis of the excavations at Charsadda gave the date of 300-150 BCE for NBPW in the North West—leading to the assumption that the expansion of the Mauryan Empire and presence of the NBPW were linked (Roy 1983: 95). Wheeler was not the first to link the expansion of the Mauryan Empire with the distribution of NBPW, since Y.D. Sharma and P. Thapar also observed that the spread of NBPW into areas peripheral to the Ganga Plain corresponded with the expansion of the Mauryan Empire into these same peripheral areas (ibid.). K.K. Sinha disagreed with this model, positing that NBPW occurs in two contexts—one earlier (primary distribution) and one later (secondary distribution) irrelevant of geographical location. The primary distribution group includes sites such as Taxila, Vaisali, Sravasti, Rajgir, and Kausambi with a chronological span of 500-300 BCE. The secondary distribution group includes sites such as Hastinapura, Ropar, Ujjain, and Kumrahar which could not be dated earlier than 350 BCE (ibid.: 96). Others have tried to push back the date for NBPW by associating the alms bowls used by Gautam Buddha with the carinated *handi* form of the late phase of NBPW, pushing the initial date of NBPW to the pre-Buddha period by a century or two (ibid.: 95). Roy points out that the carinated *handi* is not a bowl but a cooking vessel often found with soot marks and is very rarely ever found in fine NBPW (ibid.). A recent series of radiocarbon dates from the site of Ayodhya in Uttar Pradesh, suggests that the NBPW phase could extend back as early as c.1000 BCE, expanding the date range for the tradition to a thousand years (Singh 2008: 260). Providing an accurate date range for NBPW is particularly difficult because of the variation in the descriptions of the ware. What is typically thought of as NBPW is what Roy calls ‘top-graded NBPW’, a hard and dense ceramic with a thin section and a glossy surface with a highly lustrous sheen. These sherds are easily identifiable in both their appearance and through the sharp metallic sound they produce when struck (1983: 198). However Roy goes on to name at least five more variations of NBPW which are vastly different in fabric, colour, and quality. If the ‘top-graded NBPW’ is Fabric A, then Fabric B has comparatively thick grey sections and does not show the same lustre, being generally less glossy and smooth. The NBPW of this fabric is difficult to distinguish from Black-Slipped Ware (BSW) and the only differentiation is made in the shape of the vessels, since the straight-sided, carinated, sub-ovaloid bowls which are common shapes of BSW are absent in this type of NBPW. Roy posits that this represents a technological stage between BSW and ‘top-graded NBPW’ (ibid.: 198). NBPW in ‘Fabric C’ can have a red or grey core with a red, buff, or orange yellow matt surface visible beneath the shining black or brown slip. The peeling of the slip indicates that the vessels were fired in both oxidising and reducing conditions (ibid.: 199). The NBPW made of Roy’s ‘Fabric D’ is characterised by thin sherds with a lustrous finish similar to those of Fabric A and Fabric B, but the sherds are usually

both black and red in colour, likely the result of inverted firing (ibid.). The coarsest variety of NBPW is made of 'Fabric E', which is most prolific in the late phase of the ware, with a thick section and a darkened, un-oxidised, smoky core. The surface colour ranges from dull black to dull grey, with most of the sherds lacking a slip treatment. The fabric as a whole is crude and the forms include small bowls, dishes, vases, and carinated *handis* (ibid.). Roy's final category of Northern Black Polished Ware is bichrome, which he describes as typical NBPW sherds with the chief characteristic being that they exhibit the combination of two colours of contrasting shade (ibid.). The surface colour in the monochrome group of NBPW, and a second design in another colour, is set off against it so that there may not be any overlapping between the two colours. The most common patterns are of thick and thin horizontal bands, vertical strokes, vertical strokes coming out from a horizontal band, transverse band or strokes, and simple circular bands or arches. These patterns are the same as found in Painted Grey Ware (ibid.).

Within Roy's classification of NBPW, he posits two different phases of NBPW based on the associated cultural assemblages, an early phase and a late phase. The early phase is characterised by the continuation of Black and Red Ware (BRW) and BSW shapes in the eastern region, and PGW in the western region, along with iron artefacts (ibid.: 97). The late phase of NBPW and the assemblage associated with it is characterised by the disappearance of BSW and BRW, a decrease in the fine 'top-graded' NBPW of the previous phase, and an increase in coarse NBPW and coarse grey ware. There was considerable change in the forms of NBPW as well, with the production of the typical *thali* and bowl forms decreasing and the production of basins, vases, and other utilitarian forms increasing (ibid.). This is alongside the introduction of baked brick structures, ring-wells, drains, soak-pits, fortifications, and other indicators of urbanisation (ibid.). On the basis of associated cultural material, this late phase is placed somewhere between 330 BCE to the first century BCE thus placing the early phase of NBPW from c. 600-300 BCE (ibid.: 98).

3.3.5 Punch-Marked and un-inscribed Cast Coins

It is generally accepted that the earliest evidence of coinage in South Asia is from silver punch-marked coins, roughly dating to the sixth or fifth century BCE (Ghosh 1989: 10). These coins were small, thin and roughly shaped, with a variety of oblong, square, oval, rectangular, and circular forms, and bear up to five symbols impressed by individual punches (Figure 3.10). There has been much written about the significance of the symbols, several hundred of which are known, but very little is known of the origin of the coinage. It is thought that perhaps these earliest punch-marked

coins are not evidence of a centralised state, but instead owed their origins to silversmiths and bankers, issued by guilds or other local bodies (ibid: Thapar 2000: 476.). Regardless of the origins and the significance of the symbols, punch-marked coins have come to be associated with the urbanisation of the Ganga Plain in the Early Historic period, as part of the Northern Black Polished Ware assemblage described above by T.N. Roy. Whilst many of these coins have been found in Northern India, several thousands of the coins have been found all over the Subcontinent, similar to the distribution of NBPW. The circulation of these coins also seems to follow the circulation of NBPW, ending in the second century BCE (ibid.).

3.3.6 Terracottas and Ring Stones

There is a type of terracotta female figurine that has been associated with the Mauryan period, and that has often been used as evidence of Mauryan occupation. These figurines are often characterised by smooth modelling with moulded faces, and the remaining parts, including the headdress, are hand-modelled and joined together before firing (Mukhopadhyay 1972: 72; Allchin 1995) (Figure 3.11). These figurines often have similar surface treatment to the ceramics of the period and are various shades of grey, black, or buff. The dating of these figurines has been entirely based on art historical typologies and relative chronologies, and this such creates difficulties for their use as chronological indicators. In addition they too may have been traded beyond the borders of the Mauryan Empire and as such they cannot be directly related to Mauryan authority (Coningham and Young in press). The presence of carved ring stones at sites associated with the Mauryan Empire within the Ganga Plain has also been linked with the identification of Mauryan occupation (Figure 3.12). However, as with the terracotta figurines, the dating of these ring stones is based on associated artefacts and relative chronologies, and the function of these artefacts is still unknown (Allchin 1995; Leoshko 2012; Coningham and Young in press).

In conclusion the markers presented in this section represent all of the material evidence that is used to identify the Mauryan period in the archaeological record throughout South Asia. The following sections will outline the models of early Buddhist propagation in South Asia and similar to the above section, identify the material markers of early Buddhism in the archaeological record.

3.4 Models of Early Buddhist Propagation in South Asia

Compared with the study of other world religions, there have been relatively few models for the propagation of early Buddhism. This neglect is due in part to the hegemony of the textual sources, in this case the Pali Chronicles which detail Asoka's imperial patronage and missionising campaign, as well as the way in which Buddhist scholars study and perceive Buddhism. In a recent article, Julia Shaw compares several different models for the propagation of early Buddhism, highlighting the dominance of Buddhist theology in the way in which early Buddhism is discussed and framed. Bailey and Mabbett (2003) identify both 'positive' and 'negative' models of Buddhist propagation, with the 'positive model' espoused by scholars such as Romila Thapar and H.P. Ray, and the 'negative model' proposed by scholars such as Richard Gombrich (Shaw 2013: 89). These two models follow the same divisions between the Buddhism of the texts, and the Buddhism as represented by both text and archaeology, with Gombrich's approach being predominately based on Buddhist texts and Ray and Thapar taking a more holistic approach. In the 'positive model' Buddhism emerges out of and encourages urbanisation because it provided the means of legitimisation for non-Brahmin elites, such as merchants and traders who then facilitated the spread of Buddhism across Asia. In this model Buddhist monasticism was an instrument of statehood and its success is attributed to the close relationship between monks and kings (ibid.). By comparison the 'negative model' looks at the same process of urbanisation but attributes the Buddhist preoccupation with suffering (*dukkha*) as a response to the social upheaval, poverty, and illness caused by this urbanisation. In contrast to this suffering, the Buddhist *sangha* represented "an idealised form of pre-state of tribal organisation described in the Vedic texts" (ibid.). Buddhism flourished because monks acted as mediators between the reality of urbanisation and the idealisation of an earlier time, "benefiting from the social change that other groups were finding difficult to digest" (ibid.). The 'positive model' therefore reinforces the relationship between the propagation of Buddhism and the state despite the paucity of material evidence, whilst the 'negative model' seems to reinforce the idealised version of Buddhism that emerged in nineteenth-century European scholarship, as mentioned in Chapter Two.

There are several other models that have been proposed for the propagation of early Buddhism including the 'passive model' and 'active model', which are again concerned with the difference between the ideal of Buddhism and the 'degenerate' practice of Buddhism. The 'passive' model is typified by Max Weber's (1963) description of Buddhism as being 'other-worldly' and in short the antithesis of modern capitalism (Shaw 2013: 90). In this model monks are regarded as passive recipients of lay donations and any evidence of the role of monks in commercial forms of exchange

are regarded as the deterioration of 'true' Buddhist values (ibid.). In contrast to this idea that monks are merely passive recipients, the 'active' model uses donative and epigraphical evidence to emphasise the active role that monks and monasteries played in trade and commerce. This is particularly clear in Sri Lanka where a growing amount of evidence has shown that monasteries were active agents in the facilitation of agriculture, as well as colonising and administration centres (Ray 1989: 456; Shaw 2013; Coningham and Gunawardhana 2013).

Other models for the study of early Buddhism can be broken down into 'ritual' models and 'practical' models. The first group focus on the ritual sphere of interaction between the monasteries and local cults such as *nagas* and *yaksas*. These models are often localised and focus on the conversion and appropriation of iconography and material culture (Shaw 2013: 90). By contrast 'practical' models look beyond the ritual sphere to the way in which Buddhism interacts with the daily life of the laity (ibid: 84). These 'practical' or 'functional' models construct a more socially conscious model of religious change, moving beyond the ritual landscape and examining the archaeological landscape as a whole. These models are similar to Timothy Insoll's methodology for identifying and understanding religion within a society; rather than focusing on the sacred and ritual aspects of a religion, archaeologists look at the way in which religion can be seen in all aspects of daily life (2004: 23). The idea of modelling the spread of early Buddhism will be returned to in later chapters, in conjunction with the testing of models of the Mauryan Empire.

3.5 Identifying Buddhist Markers in the Archaeological Record

As described in Chapter Two the identification of Buddhist sites has been based on textual sources and monumental architecture. However, it is almost impossible to identify early Buddhist material culture, not only because it may have been constructed using perishable materials, but because the material culture is almost indistinguishable from other cultures and religious traditions such as Jainism and Brahmanism. In addition to sharing symbols and iconography such as the *swastika* and *vajra/trisura*, these traditions also share similar architectural forms such as the apsidal *griha* (Mittra 1971: 52; Ray 2004). As mentioned in Chapter One, Julia Shaw notes that "that there never was a 'Buddhist period' in South Asian history. Not only did Buddhism grow out of, and function within a multi-religious context, but being a monastic tradition, its ritual identity did not extend significantly, and certainly never exclusively, into the everyday lives of the laity" (2013: 88). Consequently the archaeological markers of Buddhism are currently limited to religious monuments such as *stupas*,

viharas, *grihas*, and Asokan pillars, and thanks to the scholarly link between Asoka and the spread of Buddhism, indications of Mauryan period monuments and occupation.

3.5.1 Monuments

Having discussed the past and present use of textual sources in the identification of Buddhist sites, one of the major themes of this thesis will involve the identification of the material remains of Buddhist sites. As described in the previous chapter, the archaeology of Buddhism has been focused on the architecture and monumentality of the Buddhist monuments, and these previous approaches have, for the most part, viewed monuments as static, ignoring the dynamic aspects of past and present landscapes and cultures (Insoll 2009: 290). The recent push in archaeology to look at Buddhist sites as archaeological sites rather than monuments applies a landscape approach (Coningham and Gunawardhana 2013; Hawkes 2009; Shaw 2007). In particular, these studies are contributing to the understanding of the roles of monasteries in the commerce, culture, and social landscapes of their surroundings. However many of these surveys and studies are still employing the same architectural typologies to identify Buddhist sites.

The architectural typology of Buddhist sites includes three main types of monuments: *stupas*, *grihas*, and *viharas* (Coningham 2001: 70). These monuments can be further subdivided into many different sub-units but the one that is particularly relevant to this thesis is the *bodhi-griha* (the Bodhi tree sanctuary). Archaeologists have gone so far as to say that one or all of these monuments should be present at a Buddhist site (Chakrabarti 1995: 192; Coningham 2001: 71). These markers are tied up in the hegemony of the textual narrative for the nature of early Buddhism, the monumentality of brick and stone art and architecture, and the intrinsic link between early Buddhism and the Mauryan Empire.

Stupas

As mentioned above in Section 3.4.3, the *stupa* is the most resilient of Buddhist monuments, and can be defined as a mound of brick, stone, or earth enshrining a relic or marking a sacred place (Coningham 2001: 72) (Figure 3.13). The origin of the *stupa* is debated with some scholars (Longhurst 1936) suggesting that it developed directly from the megalithic tombs of the south Indian Iron Age while others (Tucci 1977) suggest a northern influence, developing from the Gandharan

Grave Culture (Coningham 2001: 72). Within Buddhist contexts, it is thought that they appear around 400-300 BCE, but that their construction does not become prevalent throughout South Asia until around 200 BCE - 300 CE (Hawkes and Shimada 2009: xiii). There are typically four categories of *stupas* that are recognised in the archaeological record; those containing the corporeal relics of the Buddha (*saririka*), his disciples, and saints; those containing objects of use, such as the Buddha's begging bowl (*paribhogika*); those commemorating incidents from the Buddha's life or places visited by him (*uddesika*); and votive *stupas*, built by pilgrims and monks as a way of obtaining merit (Coningham 2001: 72).

Viharas

Viharas, or monasteries, are the living and meditation places of monks and nuns, and are usually organised as a group of cells or rooms surrounding a central courtyard (Figure 3.14). This classic quadrilateral plan is the most recognisable and dates to the Kushan period (first – fifth century CE), but it is by no means the earliest or indeed the only plan (Allchin 1995: 246; Coningham 2001: 78). It is likely that the earliest *viharas* were constructed using perishable materials, but due to the focus on brick-built architecture at Buddhist sites, these early forms have not been examined at most sites. There is evidence of early rock-cut caves in the Deccan and the evolution of these rock-cut *viharas* has been well-documented (Mitra 1971), however, much of the evidence used in the dating of these monuments is entirely relative and based on art historical and architectural typologies (Figure 3.15).

Grihas

This last category of Buddhist monuments is often the most misunderstood in the archaeological record. These structures are sometimes considered as sanctuaries and exhibit a wide variety of forms including apsidal, circular, and quadrilateral structures (Coningham 2001: 75) (Figure 3.16). The general description of a *griha* is a hall with an object of worship, such as an image of the Buddha (Figure 3.17) like that found at the site of Nagarjunakonda, or a *stupa* as found at Bairat (ibid.). There are also several different forms of *grihas* such as the *bodhi-griha* that will be examined further in Chapter Five. This type of monument is shared with both Jainism and Brahmanism in the archaeological record and as such is often difficult to identify as specifically Buddhist (see Ray 2004). Most of the distinctions made within this architectural form are again based on relative chronologies and architectural typologies (Brown 1956; Rowland 1967; Mitra 1971).

3.5.2 Artefactual Identification of Buddhism

As described above, the identification of early Buddhism in the archaeological record is almost exclusively reliant on textual sources and monumental structures. This is how the archaeology of most religions has been studied—the identification of religious or ritual sites (shrines, churches, temples, synagogues, mosques, etc.) or through burial evidence (Insoll 2004: 22). One of the issues with this methodology is that it neglects the quotidian aspects of religion, the practice and the way in which it structures the lives of those who practice it (*ibid.*). As discussed in Chapter One, it is particularly true for the study of ‘world religions’ or those based on a textual tradition, as the texts provide evidence of the way in which the religion was ‘meant’ to be practiced, and requires fewer inferences. This methodology is slowly changing in archaeology as scholars such as Timothy Insoll have expanded upon ideas that religion has a central place in the way in which people structure their lives, influencing their diet, social organisation, subsistence, economy, technology etc. (2004: 23). Insoll’s methodology will be attempted in the analysis of the archaeological evidence from the 2011-2013 excavations at Lumbini both within the Sacred Garden at the monastic site and at the Village Mound.

In the absence of the identification of Buddhist material culture in the everyday lives of monks and the laity, the only artefactual evidence for early Buddhism is in the sculpture and iconography. There are very few examples of Buddhist sculpture or material culture that can be dated to the Mauryan period or earlier, aside from the Asokan pillars and capitals. In addition, one of the biggest issues with using iconography to identify Buddhism is the shared use of iconography and symbols by Buddhism, Jainism, and Brahmanism and the aniconic nature of Buddhist art and iconography during this early period. The first visual representation of the Buddha was thought to emerge from Gandhara in the North West around the first century BCE (Coomaraswamy 1972). Before the first century BCE, the Buddha was depicted in a number of different representations including an empty throne, the Bodhi tree (Figure 3.18), the wheel, and Buddhapada (the Buddha’s footprints) (Figure 3.19).

In conclusion the markers presented in this section represent all of the material evidence that is used to identify early Buddhism in the archaeological record. These markers are almost exclusively monumental and tied to the identification of the dynastic architectural chronologies and sequences constructed in the nineteenth century and reinforced in the twentieth century. The following section will introduce and provide the history of re-discovery and archaeological investigations of the main case study of this thesis—Lumbini, the birthplace of the Buddha.

3.6 Case Study: Lumbini

The site of Lumbini is the primary case study for this thesis and the following section will introduce the site as well as outline the history of archaeological investigation at the site, including the most recent 2011-2013 Durham-led UNESCO excavations. The data collated from previous investigations of Lumbini will be presented with the new work and phased interpretations of the published material in Chapter Four, alongside the results of the analysis of the 2011-2013 ceramic and artefactual assemblages, and other relevant project data analysis conducted for this thesis. The following sections describe the methodology from these recent excavations with particular focus on the ceramic analysis which has formed one of the largest sources of primary evidence in this thesis.

3.6.1 Background on the Site

The site of Lumbini is located in the Rupa Devi District of the Nepal Terai (Figure 3.20). As the birth-place of the Lord Buddha, Lumbini has been, and remains, one of the holiest sites of pilgrimage for Buddhists worldwide. Evidence of Asoka's own pilgrimage to the site in 249 BCE can be seen in the inscribed stone pillar still standing and marking the garden of Lumbini. Since Asoka, countless other pilgrims have visited the site and left their mark on Lumbini, including the two Chinese pilgrims mentioned in Chapter Two, Faxian in the fifth century CE and Xuanzang in the seventh century CE. Their accounts were later used by Cunningham and other antiquarians in the nineteenth century, who were attempting to locate the site, as described in Chapter Two (Cunningham 2001: 63). Asoka's pillar also contains the fourteenth century CE graffiti of Prince Ripu Malla, demonstrating that, with its multi-phase temple constructions, monastery, and occupation areas, Lumbini remained an important site of pilgrimage from the pre-Mauryan period through to the medieval period. At some point after the pilgrimage of Ripu Malla however, detailed knowledge of Lumbini was lost until its re-identification at the end of the nineteenth century (Cunningham and Tremblay 2013: 63).

As discussed in Chapter Two, the original search for and rediscovery of the natal landscape of the historical Buddha was not a professional or scientific endeavour, but representative of archaeology and antiquarian research at the time. Since Dr. Anton Fuhrer and General Rana's re-discovery of Lumbini in 1896, the site has been subject to a series of intense and often destructive excavations. After Fuhrer announced the discovery of Lumbini, his work came under close scrutiny and he was forced to resign his post with the Archaeological Survey of North West Province (NWP) and Oudh

under allegations of plagiarism and fraud (ibid.). In order to investigate Fuhrer's claims the Government of NWP and Oudh commissioned Colonel Waddell and P.C Mukherji to explore the Nepal Terai, and plan and excavate the Buddhist sites within it (ibid.: 64). Whilst working at Lumbini, Mukherji sketched plans of the standing ruins as well as excavating several trenches around the Asokan Pillar and the Maya Devi Temple, atop which the small modern temple dedicated to Rupa-deva had been erected (ibid.: 65) (Figure 3.21). Mukherji's brief report describes Lumbini as an "ancient site [that is] full of ruins. Wherever I excavated walls of ancient structures were brought to light" (1969: 34). However, Mukherji's recording and excavation technique reflected the antiquarian methodology of the time, and he concentrated on describing the Asokan inscription, the decorative plinth of one phase of the Maya Devi Temple, and the Gupta period sculpture of Maya Devi (Coningham and Tremblay 2013: 66). After Mukherji's initial excavations in 1899, the site of Lumbini was left relatively untouched until the 1930s when General Kaiser Shumsher J.B. Rana carried out large scale excavations and reconstruction at the site (ibid.: 68).

Unfortunately, there is little to report concerning Kaiser Shumsher J.B. Rana's excavations as there is almost no documentation on the nature of his work. However, his work had an enormous impact, which can still be seen today, as he removed metres of the later deposits at the site. As is clear from photographs taken in the early 1930s, Lumbini was in need of conservation but the techniques and methods utilised involved the destruction of many of the existing structures, the rebuilding of the new temple, and the complete remodelling of the bathing pool (Allen 2008: 233). As a result, the original Maya Devi bathing pool was dug away, reshaped, and provided with stone steps, and the small modern temple was replaced with a larger version set on a brick platform with railings (ibid.). The backfill from the excavations was formed into two mounds to the north and south of the temple (Bidari 2002: 87), monuments which were later to be confused for Buddhist *stupas* by visiting pilgrims (Figure 3.22). The site was left in this state until 1962, when the Archaeological Survey of India returned to the Nepal Terai to investigate the natal landscape with new archaeological techniques (Mitra 1972: i).

The joint project, led by Debala Mitra between the ASI and the Department of Archaeology, his Majesty's Government of Nepal, surveyed over 30 sites in the Nepal Terai and excavated at Tilaurakot, Kodan, and Lumbini. As described in Chapter Two, Mitra's excavations at Lumbini were limited to the western side of the pillar, but her criticism of the condition of the site was scathing, (1972). She noted that the group of 16 small votive stupas which she saw during a visit in 1957 had been completely demolished and several of the structures exposed by Mukherji in 1899 could no longer be traced (ibid.: 197). Mitra also criticised the excavations of Kaiser Shumsher J.B. Rana,

stating that the unscientific technique employed by Rana had led to the damage and wholesale destruction of many structures (ibid.). Some of the artefacts uncovered during Rana's excavations had found a home in the kitchen of the Buddhist monk of the Lumbini Dharmodaya Committee who lived in the old rest house. Unfortunately there was no information regarding their original contexts or exact locations (ibid.). After Mitra's brief work at Lumbini in 1962, the site remained in a dilapidated state until 1967 when the UN Secretary General U-Thant visited Lumbini on a diplomatic mission.

The visit of U-Thant to Lumbini acted as a catalyst, with the newly formed Lumbini Development Committee (LDC) engaging Japanese architect, Kenzo Tange, to develop a plan which saw the site divided into three distinct areas linked by walkways and canals. At the southern end of the site, the Sacred Garden was focused on the key archaeological monuments, but was linked to a secular administrative and visitor induction zone to the north, through a middle monastic area. As a result of these major design initiatives, archaeological excavations were recommenced by the Department of Archaeology in 1970 and 1971 with the principal aim of locating the Lumbini village, as mentioned in the inscription on the Asokan pillar (Bidari 2002: 89). The village, Lumbini *game*, was identified around and under the modern police station and parade grounds, and the excavations indicated that the earliest habitation probably dated to the sixth century BCE (ibid.: 7). In parallel, throughout the 1970s and early 1980s, most of the work within the Sacred Garden was focused on restoring existing monuments rather than exposing further structures (ibid.; Rijal 1979: 90). Indeed, B.K. Rijal reconstructed many of the monuments that were exposed by Kaiser Shumsher J.B. Rana in the 1930s, particularly around the walls of the temple and the 'Mauryan *stupa*', which had been all but removed by previous excavations (ibid.). After conducting excavations almost every year from 1975 to 1983, Rijal and the LDC were able to establish a cultural sequence for the site, beginning with the period of Northern Black Polished Ware (Bidari 2002: 90). In 1984 and 1985, Tara Nanda Mishra conducted additional excavations around the Maya Devi Temple complex, constructing a stratigraphic sequence of six layers beginning with NBPW and ending with the Khasiya Malla period in the ninth-fourteenth centuries CE (ibid.). However, his methods of dating were later called into question, as he had dated the bricks according to their size alone, rather than using associated artefacts (ibid.: 91).

The next phase in the conservation and excavation of Lumbini began in 1990, when the Japanese Buddhist Federation (JBF), the Department of Archaeology, His Majesty's Government of Nepal (DoA), and the newly named Lumbini Development Trust (LDT), proposed a major restoration project at the site (Bidari 2002: 90). The primary objective of the excavation was the immediate

restoration of the Temple, and the work began in 1992 with the careful dismantling of the modern temple, and excavation down to the Mauryan occupation period, the results of which will be discussed in Chapter Four. During the excavation, the JBF left a pillar of brickwork in the north-west corner of the structure, which displayed a series of construction horizons stretching from the Mauryan period to the modern day.

In 1997 Lumbini was declared a World Heritage Site, and in 2001 a UNESCO mission was carried out by the University of Bradford. This mission was an environmental and geophysical survey of the site, involving magnetometry, resistivity, auger boring, and several months of temperature and humidity observations. The geophysical plots demonstrated several fairly well defined regions of subsurface remains, and the magnetic signatures indicated areas of brick rubble, and probably demolition, before a phase of rebuilding (Coningham and Schmidt 2002; Coningham et al. 2011). The results confirmed the continuous occupation and restructuring of the Maya Devi Temple site, and the artificial nature of the current ground surface of the Sacred Garden. This non-intrusive mission was also the first following Rijal's excavations of 1970-71 to investigate the Village Mound to the south-west of the Sacred Garden. The presence of the modern police station on this site caused considerable interference with the results, but the report of this UNESCO mission did confirm several ephemeral curvilinear features in the area, possibly small enclosures on the edge of the village, and a well-defined feature which could represent a brick rubble path (*ibid.*) (Figure 3.23). The results of the auger survey showed that the Sacred Garden complex stands on an underlying natural rise of thick clay sediments, cut by paleo-channels of the river, which currently runs in several stream-beds to the east of the site, but which is known to change course during the regular seasonal flooding of the surrounding area (*ibid.*). This buried surface is then covered by a deep stratigraphy of accumulated sediments and surfaces, deepest under the Temple complex, representative of the long history of occupation and use of this site. The Village Mound is likewise apparently an amalgamation of a natural clay rise and accumulated sediments comprised of building remains, debris, and occupation surfaces. The logical conclusion therefore is that the Sacred Garden site and the Village Mound were chosen for occupation because they represented a relative haven from the seasonal flooding of the plains. However, the team also recognised that years of excavation and redistribution of soil and material around the site has left it extremely vulnerable to flooding in its exposed pits, wells, and trenches, and this has led to the current need for rescue work and conservation in the Sacred Garden (*ibid.*).

Despite this state of affairs Lumbini remains an important resource for the study of the development and spread of early Buddhism, as almost all of the excavations to date have stopped upon reaching

the brick phases of construction, thus preserving the transitional phases between Mauryan and pre-Mauryan periods. Investigating this 'Mauryan horizon', as it has been termed, is the main focus of the most recent excavations at the site by a team led by Professor Robin Coningham of Durham University, and Sri Kosh Prasad Acharya of UNESCO and the Pashupati Area Development Trust. Excavations were conducted from 2011-2013 and all data, materials and artefacts, published or unpublished were available for assessment by this thesis.

3.6.2 UNESCO/Durham University Excavations 2011-2013

Kenzo Tange's 1981 Master Plan for the Lumbini Garden noted that "the actual extent of the artefacts buried underground is still not known" and stressed that "through excavation investigations, the total picture of urban structure and its transitions must be known" (Tange 1981: 35). As described above, Lumbini has been subject to almost a century of archaeological investigations, but the understanding of the physical signature of the archaeological site and its cultural landscape is still remarkably poor. Indeed, as noted in the UNESCO mission reports of 2000 and 2002, there is little known of the original extent and definition of the Sacred Area, its sequence of development, or the original function of the standing remains. In addition, there is very little known about the development, nature, and sequence of Lumbini *game*, South Asia's earliest named settlement, or its relationship to the monuments within the Sacred Garden (Coningham and Acharya 2011). Within the Maya Devi Temple, the Department of Archaeology (DoA), Japanese Buddhist Federation (JBF) and Lumbini Development Trust (LDT) collaborative excavations between 1992 and 1997 identified the presence of occupation which predated the Mauryan brick structure. K.P. Acharya proposed that structures associated with this early period at Lumbini would have been constructed out of perishable materials such as wood, bamboo, and mud, and were likely to have been damaged by later constructions. Some of these early sequences are still visible, preserved within and below the cell-like structure of the Mauryan temple. As most of the other pre-Asokan horizons of the Buddhist pilgrimage sites of South Asia have been disturbed by subsequent phases, reconstruction, and conservation efforts, this resource at Lumbini is unique, and recent developments in archaeological science have allowed for precise dating and sequencing of these earliest phases.

To prevent further damage to the archaeological remains at Lumbini one of the objectives of this new project was to be as minimally invasive as possible, using non-intrusive geophysical and auger survey to identify areas for targeted excavation in order to gain a clearer understanding of the

archaeological signature of Lumbini. Geo-archaeological sampling was also used to understand the micro-morphology of the site, and to reconstruct the paleo-environment. A combination of Optically Stimulated Luminescence (OSL) and Radiocarbon dating were used to scientifically date the sequence of the site. The sub-regions of the site investigated include the Maya Devi Temple; the Sacred Garden; the Village Mound; the Heli-pad; and the Nursery Well. These areas and the excavations and surveys within each are described below to highlight the locations of particular structures across the site (Figure 3.24), and to provide a methodological context for the discussion of the evidence in Chapters Four and Five.

The Village Mound is located approximately 200 metres southwest of the Sacred Garden with the western part of this raised area now covered by a nineteenth/twentieth century Rana period Police Station and its surrounding rampart. The aims of the excavations in this area were to identify the cultural and depositional sequence of the village, and to link this in some way to the archaeological sequence from the Sacred Garden. Three trenches were excavated—Trench A, a small 1.5 x 0.1 metre sondage into the levee bank, Trench B (B1, B2, B3), a 12 x 1 metre trench situated over a cluster of geophysical anomalies identified in 2001, and Trench P, a 2 x 2 metre trench located on the parade ground of the Police Station. Excavations revealed a continuous sequence of habitation from the twelfth century BCE through to the seventh century CE (Coningham and Acharya 2012).

The Heli-pad lawn, immediately north of the current LDT Archaeology offices, was subject to a geophysical survey in January 2012, which led to the identification of a number of anomalies and potential archaeological features. In the same year the LDT reported the discovery of an ancient brick-wall during the cutting of a road-ditch. Consequently, two trenches were sited upon the Helipad – Trench 1, across the road-ditch in order to examine the ancient wall, and Trench 2, across a large rectangular geophysical anomaly in the northeast part of the lawn, measuring 12 x 0.5 metres (E-W). Trench 1, excavated to a depth of 0.6 metres, reached the base of the ditch cut without encountering any *in situ* structural features and was subsequently closed. Trench 2 revealed a full cultural sequence and reached natural at a depth of 2.6 metres below the surface. A 2.2 metre high brick-platform encountered in excavations featured four separate layers of brick-bat paving, each separated by a layer of mud-packing. This stood on an earlier palaeosurface which sealed the earliest evidence of occupation, a surface with two intercut pits [1352] and [1353] – both of which were rich in ceramics and charcoal, and directly comparable in form and contents to two pits identified in Trench P on the Village Mound in 2012 (Coningham and Acharya 2013).

Geophysical survey of the Nursery Well area in the 2012 field season identified a number of anomalies surrounding the well. A 4 by 4 metre trench was therefore sited with its south west

corner in the centre of the well in order to investigate both the well and a potential pit to the northeast. The trench was excavated to a depth of 1 metre at its deepest point, and resulted in the identification of a re-cut of the well's original construction cut, interpreted as representing a significant repair to the well during its functional lifetime. Associated with this was a significant dump of ceramics, as well as a wider cut enabling access to the well's external face. The well itself was constructed using specially made and marked bricks. These appear to have been formed by creating intact rings of clay, which were then marked and cut into individual bricks, with the markings indicating where each brick belonged within its course. Charcoal samples, along with a single OSL sample were taken in order to date the construction of the well. However, no pit like features were identified that might have corresponded to the geophysical anomalies identified during the 2012 survey (Coningham and Acharya 2013). In addition to the early features the excavations encountered the excavation cut, brick, and ceramic dumps of Rijal's 1970's investigations.

In order to identify and evaluate the archaeological sequence of the structures identified as monasteries that lie to the Southeast of the Maya Devi Temple in the Sacred Garden, two trenches were excavated across one of the surface structures. As described previously, the Sacred Garden has been subject to more than a century of excavation, conservation, and reconstruction and as a result has a high level of disturbance. It was therefore necessary to evaluate the depth of the surviving archaeological sequence below the brick rubble of the surface features. Trench 1 was 2 x 4 metres and located to the exterior of the conserved monastery wall, whilst Trench 2 was located on the other side of the conserved wall, just inside the north-east cell of the monastery (Coningham and Acharya 2012). These two trenches yielded a structural sequence dating from the sixth century BCE to the present.

Trench 3 was opened in 2013 to the east of the Maya Devi Temple in the 'Assembly Hall' in order to characterise the Asokan and pre-Asokan entrance-way to the Temple and to directly link the sequences outside the Temple with Trench ENE inside the Temple. The 3 x 2.3 metre trench revealed four brick phases, representing multiple reconstructions of the same wall alignment, and several areas of brick paving found at different edges of the trench. At the bottom of the sequence two postholes represent the earliest indication of occupation in the vicinity of the Monastery (Coningham and Acharya 2013).

During the JBF excavations of the Maya Devi Temple in the 1990s, one member of the team from the Department of Archaeology, Government of Nepal, Sri Kosh Prasad Acharya, recognised that the 'chambers' or 'cells' described by the Japanese Buddhist Federation (JBF) were not filled by rubble

and spoil, as described by the JBF, but were in fact preserved and sealed occupation layers. In order to investigate Acharya's hypothesis eight of the 'chambers' in the Temple were excavated, revealing a continuous structural and occupation sequence dating from the eighth century BCE. The 'walls' of the cells were determined to be foundation trenches cut through this sequence. Whilst the results of each trench helped us to understand the sequence of the site, most of the structural remains were found in Trench C5b, located to the east of the Marker Stone (Coningham and Acharya 2012). A further two trenches, C6 and C9, were excavated in 2013 and another, C12, was cleaned.

The implications of all of these excavations and sequences will be discussed in the comparison of previous and current phasing of the site which follows in Chapter 4.

3.6.3 Ceramic and Artefact Analysis

Whilst the aim of these investigations was to explore the site both geographically and chronologically, particular focus was on identifying pre-Mauryan remains and studying the transitional phase between the Mauryan and pre-Mauryan phases—the so-called 'Mauryan horizon'. The excavations at Lumbini have offered a privileged position for the writing of this thesis. Examining the data first hand and having complete access to all material and resources from the excavations has meant that this thesis makes a significant contribution to the research corpus and project. An acceptable chronology and occupation sequence for Lumbini and the surrounding natal landscape had not been established prior to these investigations. Therefore, the creation of an absolute chronology and a reliable pottery and artefactual sequence was critical to the further investigation of the site, the development of Buddhism and the assessment of the Mauryan horizon for this region. One of the main aims of both the 2011-2013 project and this thesis was therefore to establish a structural, ceramic and artefactual sequence for Lumbini, to determine whether or not the site would fit into the existing models of development for the Middle Ganga Plain. The analysis of this material for this thesis contributed to both the establishment of the ceramic sequence at Lumbini, and the initial review of site phasing based on published excavation and survey data.

The phasing of the site involved the collation and analysis of the disparate published materials from almost a century of excavations at Lumbini, and included the excavations of Mukherji, Mitra, Rijal, Mishra, Bidari, the JBF and Acharya, and UNESCO missions which extended through the entire occupation of the site from the pre-Mauryan period through to the present. The conservation and reconstruction techniques used over the last century have made it impossible to date the monuments themselves, and therefore this method was the only means for understanding the

sequence and development of the standing monuments within the Sacred Garden. This initial phasing also served as a comparison for the results of the current excavations, and the contrasting conclusions of these sequences will be explored in Chapter Five.

Although little has been published on the phasing of the site, almost nothing has been published regarding the ceramics of Lumbini. A key aim of the Durham-led UNESCO project, and this thesis, was therefore to catalogue and categorise the ceramics in order to establish a sequence for Lumbini and the surrounding sites of the natal landscape. The first step of this process was to identify the known types of wares in the region, using published reports from nearby sites such as Tilaurakot, Gotihawa and Pipri, Piprahawa, and Ganwaria (Mitra 1972; Verardi 2007; Srivastava 1996). Ceramic types such as Northern Black Polished Ware (NBPW), Proto-Northern Black Polished Ware (P-NBPW), Black Slipped Ware (BSW), Painted Grey Ware (PGW), Cord-Imprinted Ware (CIW), Black and Red Ware (BRW), and Red Ware (RW) were already known from existing typologies at these comparable sites. As Red Ware is found throughout the sequence at Lumbini, it is not a useful chronological marker, and was therefore sorted into diagnostic and un-diagnostic sherds, with the un-diagnostic sherds further separated into those with a mica surface treatment and those without. These sherds were then counted, weighed, and recorded by context. The surface treatment and variations in the colour of the slip of the other un-diagnostic sherds was recorded and noted in the ceramic report, and all decorated sherds were individually catalogued, photographed, and drawn. The diagnostic sherds of RW were separated into forms based on their shape and perceived function, and counted, weighed, measured, and recorded according to their context, with the exemplars of each form and rim shape drawn. Those ceramics that are often used as chronological markers, such as NBPW, P-NBPW, BSW, PGW, BRW, and CIW, were then separated and individually catalogued, photographed and recorded in the Special Finds register.

All of the information was then entered into a database so that it could be checked against the stratigraphic sequence, which provided in turn a rough relative dating system, from which a relative pottery sequence was formed for comparison with other sites in the region. The sequence from this cross-comparison was therefore based on, but not limited by existing typologies from other sites in the region, building upon the work of previous scholars such as Purushottam Singh (1994; 2010) and Giovanni Verardi (2007). The sequence was then tested using absolute OSL and radiocarbon dating of the contexts. The ceramic assemblage from each phase was then quantified based on weight, as this is the most reliable method that can be used when comparing proportions of types in different assemblages (Orton et. al. 1993: 171), and then compared to the assemblages from Narhan,

Gotihawa and Pipri, which are the only excavation reports from the region to provide percentages and numbers for the ceramic assemblages.

As well as building typological and chronological sequences for the site, the ceramic sequence was also of crucial interest in the search for markers of the development and spread of Buddhism. CIW and P-NBPW were identified as local or regional wares which date to the period before Asoka and the existing narrative regarding the spread of Buddhism. On the other hand ceramics such as NBPW are associated with the Mauryan Empire and as such are considered 'imperial wares', as described above in Section 3.4.4, the introduction of which might indicate a process of 'Mauryanisation' or 'imperialisation'. Examining the frequency and distribution of these different wares has helped to gain a better understanding of the nature and influence of the Mauryan Empire at Lumbini, and the development and spread of early Buddhism in the area. A similar methodology was proposed for the processing of artefacts from Lumbini, but the surprisingly low number of artefacts recovered from the excavations meant that the creation of an artefactual sequence has not been possible. However, the absence of artefacts is important in itself, and the implications of this will be explored in Chapter Five.

As described above, the site has undergone multiple phases of construction spanning thousands of years, and numerous political and religious changes in the region. This palimpsest of design is an invaluable resource, and the creation of an accurate structural sequence for the site has contributed to the understanding of the numerous religious and cultural changes that have transformed the site. Of even greater significance to this thesis however are the continuities within the site, which would be impossible to explore without this structural sequence. Using plans from previous excavations at the site in combination with the plans from the current excavation, individual construction phases have been identified and classified. Samples from these construction phases were taken for OSL, Radiocarbon, and Thermoluminescence (TL) dating in order to construct a reliable and accurate chronology of the site. Again, particular focus was on the transitional phase between the Mauryan period and the pre-Mauryan period. The minimally invasive and targeted excavation methodology of the project did present a few challenges to creating this sequence, as different types of data from various trenches across the site needed to be unified in order to be analysed. This was achieved by the creation of a database for cross-referencing contexts, absolute dates, and ceramic assemblages. The result is a sequence of occupation from the Late Chalcolithic through to the post-Gupta period, covering a range of areas spread across the natal landscape.

3.7 Intra-Site Analysis of Lumbini

The intra-site analysis of the archaeological data from Lumbini provides a micro-scale perspective on the usefulness and reliability of Mauryan period and Buddhist ‘markers’ currently utilised in South Asian archaeological methodologies. This analysis will first compare the collated phasing of the site from the previous work outlined above in Section 3.6.1, with the most recent evidence and phasing of the 2011-2013 investigations at Lumbini in order to highlight discrepancies between the methodologies and subsequent interpretations. Once the archaeological data from Lumbini has been reviewed in Chapter Four, Chapter Five will present an analysis of the data intended to identify the presence or absence of both typical Mauryan and typical early Buddhist markers at the site, as laid out in Sections 3.3 and 3.5. The archaeological data from the different areas of the site including the Sacred Garden, Maya Devi Temple, and Village Mound will then be compared to investigate similarities and differences in the assemblages that might provide evidence for the relationship between the sacred and secular areas of the site.

Following the intra-site examination of Lumbini itself, the data will be compared with the results of the most recent excavations at the site of Gotihawa in the Nepal Terai in order to gain a better understanding of the regional character of these sites and the natal landscape as a whole. This will help determine whether the ‘brick horizon’ and typical markers of Buddhism and Mauryan occupation at Lumbini are in fact reliable indicators, whether the excavated archaeology and assemblages of Lumbini can be considered representative of the region, or whether there is in fact any particular regional pattern to be identified at all. The absence of a regional character may have strong implications for the later assessment of Thapar and Smith’s models of Mauryan Imperial authority and infrastructure in Chapter Seven.

3.8 Inter-Site Analysis

Based on the predicted contrast between the ‘markers’ of the Mauryan Empire and early Buddhism at Lumbini and the archaeological evidence from the 2011-2013 investigations at the site, Chapter Six will present the collated, published evidence of five other case study sites in order to determine whether Lumbini represents a unique anomaly in terms of its material remains, or whether an absence of markers at all sites can be identified, undermining the use of these markers in archaeological methodology. The five case studies were chosen from around the Subcontinent, both within and beyond the estimated boundaries of the Mauryan Empire. Gotihawa is a small monastic

site in the Nepal Terai with an Asokan pillar and a Mauryan period *stupa*. This site was chosen for its proximity and similarity to Lumbini, and the presence of an Asokan pillar, as well as the excellent excavation report produced by Giovanni Verardi in 2007. The sites of Piprahawa and Ganwaria are also in the same region as Lumbini, just over the border in the Indian state of Uttar Pradesh. Piprahawa is a monastic site with Ganwaria as an adjacent town or village site. Although there is no Asokan pillar or edict at the site, the *stupa* at Piprahawa is thought to have both pre-Mauryan and Mauryan phases and the associated settlement of Ganwaria is roughly comparable in date to the Village Mound at Lumbini. The third site of Kausambi is a large fortified site on the left banks of the Yamuna River in Uttar Pradesh. The site is mentioned in numerous textual sources including the epics, *Puranas*, Pali Chronicles, and Chinese pilgrims' accounts as well as having two Asokan pillars. The fortified city is one of the best examples of Early Historic urbanism in the Ganga Plain, and located within the fortifications is a large Buddhist monastery and sacred area. The fourth site that will be examined in this chapter is located in what is thought to be the north-west periphery of the Mauryan Empire in modern day Pakistan. Taxila was a large and well known site located at the confluence of three major trade routes in Central Asia: one from the Ganga Plain and Eastern India; the second from Western Asia through Bactria and across the Indus; and the third from Kashmir and the Himalayas (Marshall 1960: 1). The final site to be included in this thesis, Anuradhapura, is located outside the perceived boundaries of the Mauryan Empire in present day Sri Lanka.

This analysis in Chapter Six will focus on the Mauryan period and pre-Mauryan periods at each of the sites and try to identify those markers of Mauryan occupation and early Buddhism that have been described in this chapter. As well as the identification of the markers, the evidence used to date these markers at each of the site will be examined, to highlight the unreliability of most of these markers as identifiers of the Mauryan Empire. The result of this analysis along with the evidence from Lumbini will then be used to test the validity of Romila Thapar's metropolitan state model and Monica Smith's nodes-and-corridors model for the Mauryan Empire.

3.9 Conclusions

The aim of this thesis is to test the scholarly and physical evidence for the 'Mauryan horizon' that has shaped archaeological methodology in South Asia, by demonstrating challenges in the interpretation of the relationship between the Mauryan Empire and the spread of early Buddhism. This will be achieved by defining the typical 'markers' of early Buddhism and Mauryan occupation which have been described in Section 3.3 and 3.5 of this chapter, and testing for the presence or

absence of these markers in datable archaeological sequences at a number of case study sites. The analysis will involve the establishment of two sequences of phasing at the primary case study site of Lumbini, based first on previous excavations of the site, and secondly through the structural and ceramic sequence revealed by the most recent 2011-2013 excavations. This comparison in Chapter Four will highlight the discrepancies in results and interpretations between the methodologies reliant upon these 'markers', and on the scientific dating of artefacts and associated contexts. The sequencing of the structural and ceramic evidence from the site of Lumbini in Chapter Four, and the assessment of phased assemblages from individual areas of the site in Chapter Five will determine whether a pattern of construction or cultural continuity through the 'horizon' can be identified. The identification of cultural, ritual, or religious continuation through the 'Mauryan horizon' in the analysis of Lumbini will also help determine whether even the horizon itself can be dated to the Mauryan period.

The analysis of Mauryan and Buddhist 'markers' and of the 'Mauryan Horizon' at Lumbini presented in Chapter Five will be compared in Chapter Six to five other case study sites chosen to provide a representative sample of the previously estimated territorial span of the Mauryan Empire and beyond, and a chronological span across the 'Mauryan horizon'. This range will enable the assessment of Lumbini within a wider context of various site types from across the Subcontinent, and the establishment of patterns of material culture across these sites. This further testing of the 'markers' and of the so-called 'Mauryan Horizon' will be the basis for an examination in Chapter Seven of the theoretical framework of Thapar and Smith's models of the Mauryan Empire, its authority, and role in the spread of early Buddhism. Continuations of practice and culture across the Mauryan horizon in a range of the above mentioned sites will demonstrate flaws in the accepted account of Buddhism's state sponsored introduction and development in South Asia by the Emperor Asoka in the third century BCE, and thereby highlight the methodological problems of unquestioning reliance on textual sources in archaeological and historical research in South Asia.



Figure 3.1. Traditional map of geographical extent of the Mauryan Empire.

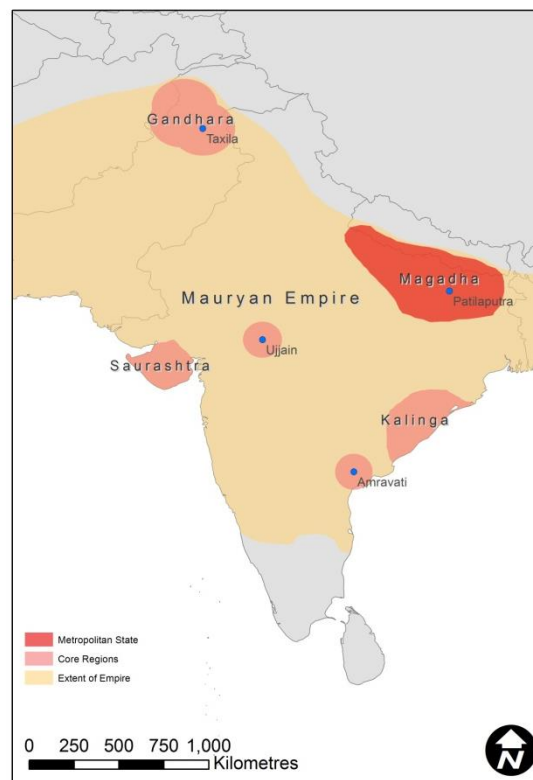


Figure 3.2. Map based on Romila Thapar's metropolitan state model of the Mauryan Empire.

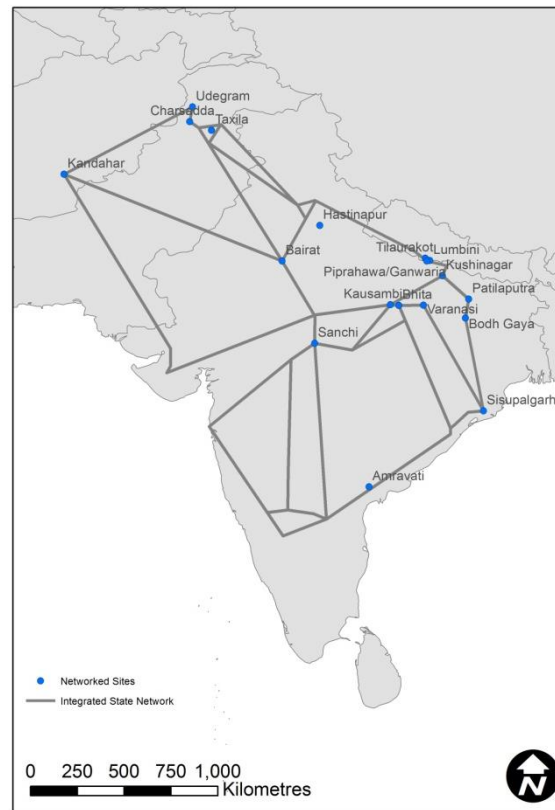


Figure 3.3. Map based on Monica Smith's nodes-and-corridors model of the Mauryan Empire. Connections of Asokan inscriptions showing a tight network (from Smith 2007: 843).

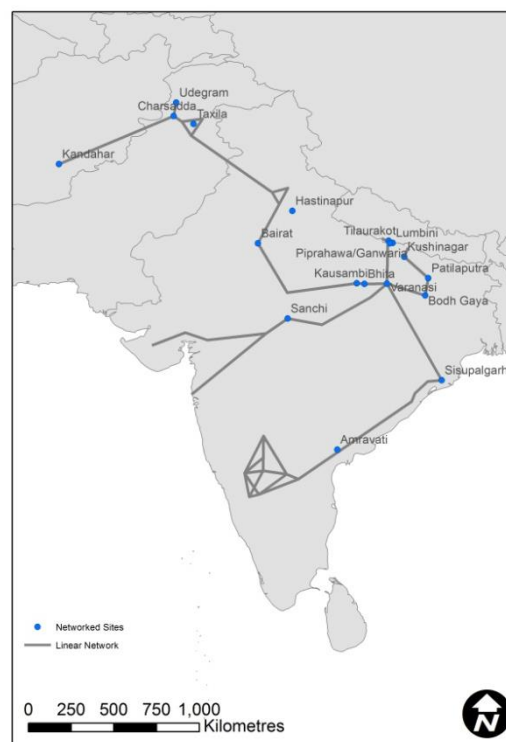


Figure 3.4. Map based on Monica Smith's nodes-and-corridors model of the Mauryan Empire. Connections of Asokan inscriptions showing a linear network (from Smith 2007: 844).



(d) Aramaic inscription
built into a wall of
Block F.

Figure 3.5. Asokan inscription from Taxila, found built into the wall of a later structure in Sirkap (from Marshall 195: Plate 34).

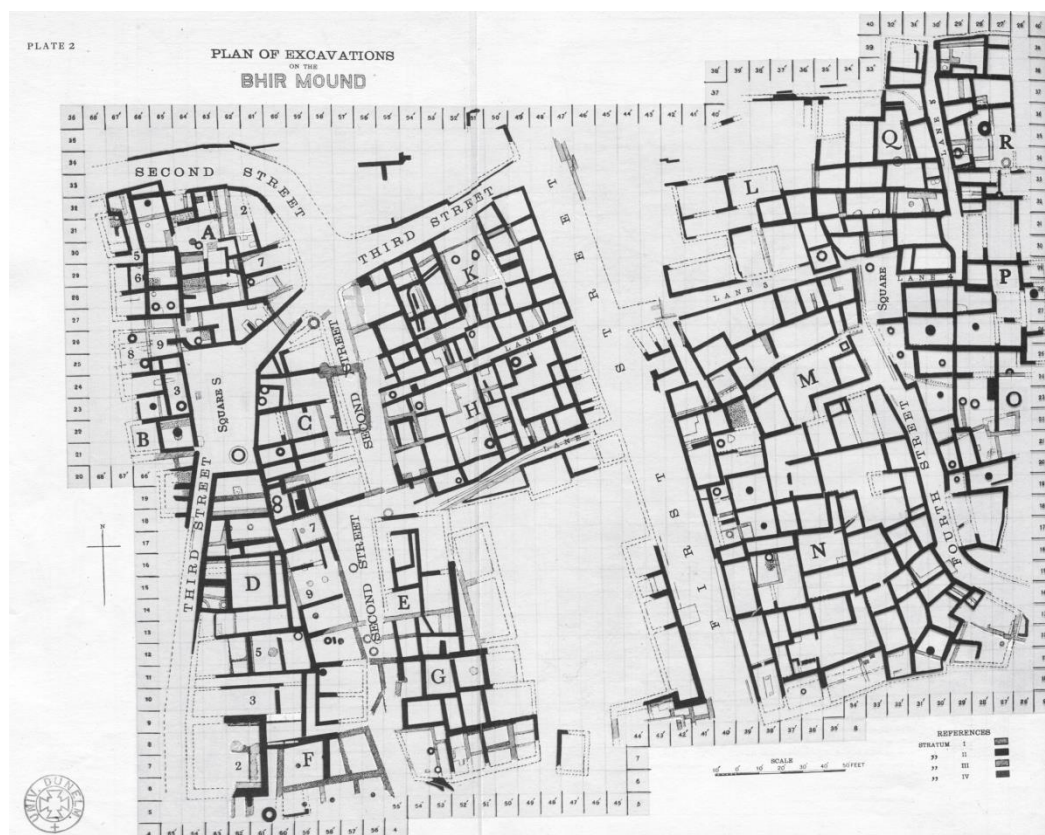


Figure 3.6. Marshall's plan of the Bhira Mound, highlighting the 'haphazard' planning of the city (from Marshall 1951: Plate 2).



Figure 3.7. The Dharmarajajika stupa and surrounding complex at Taxila. From the Marshall photograph collection, held at the Oriental Museum, Durham Univeristy (Volume 19 #1379).



Figure 3.8. Reconstructed stupa 2 at Sanchi. From the Marshall photograph collection, held at the Oriental Museum, Durham Univeristy (Volume 21 #2150).



Figure 3.9. The stupa and pillar at Gotihawa (from Verardi 2007: 104).



Figure 3.10. Punch-marked coins

(Image source <http://coinindia.com/GH048-115.02.jpg>).



Figure 3.11. Mauryan period (style) terracotta female figurine

(Image source <http://www.metmuseum.org/collection/the-collection-online/search/38431>).



Figure 3.12. Mauryan period ring stone from Taxila

(Image source <http://collections.vam.ac.uk/item/O25059/ring-stone-unknown/>).



Figure 3.13. Dhamek stupa and surrounding complex at Sarnath

(Image source

http://commons.wikimedia.org/wiki/File:Monastery_around_Dhamek_stupa,_Sarnath.jpg).

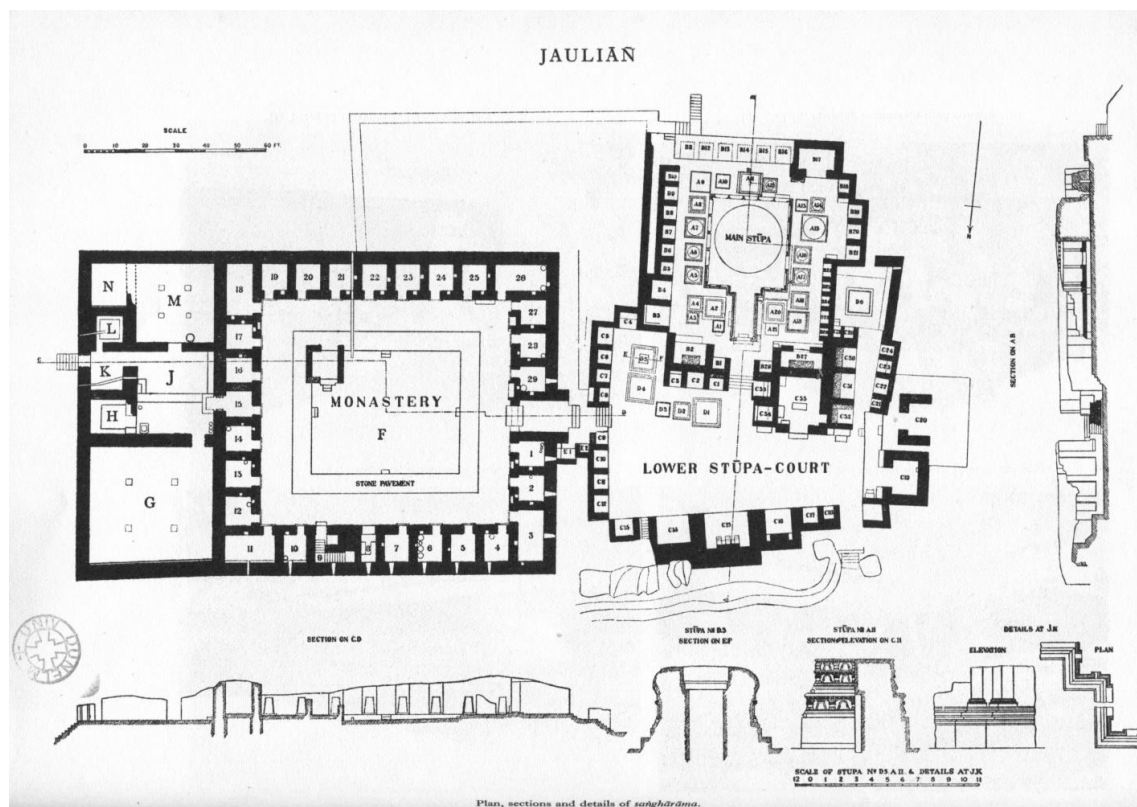


Figure 3.14. Marshall's plan of Jaulian Monastery at Taxila (from Marshall 1951: Plate 101)



Figure 3.15. The entrance of the Elephanta caves

(Image source http://asi.nic.in/asi_monu_whs_elephanta.asp).

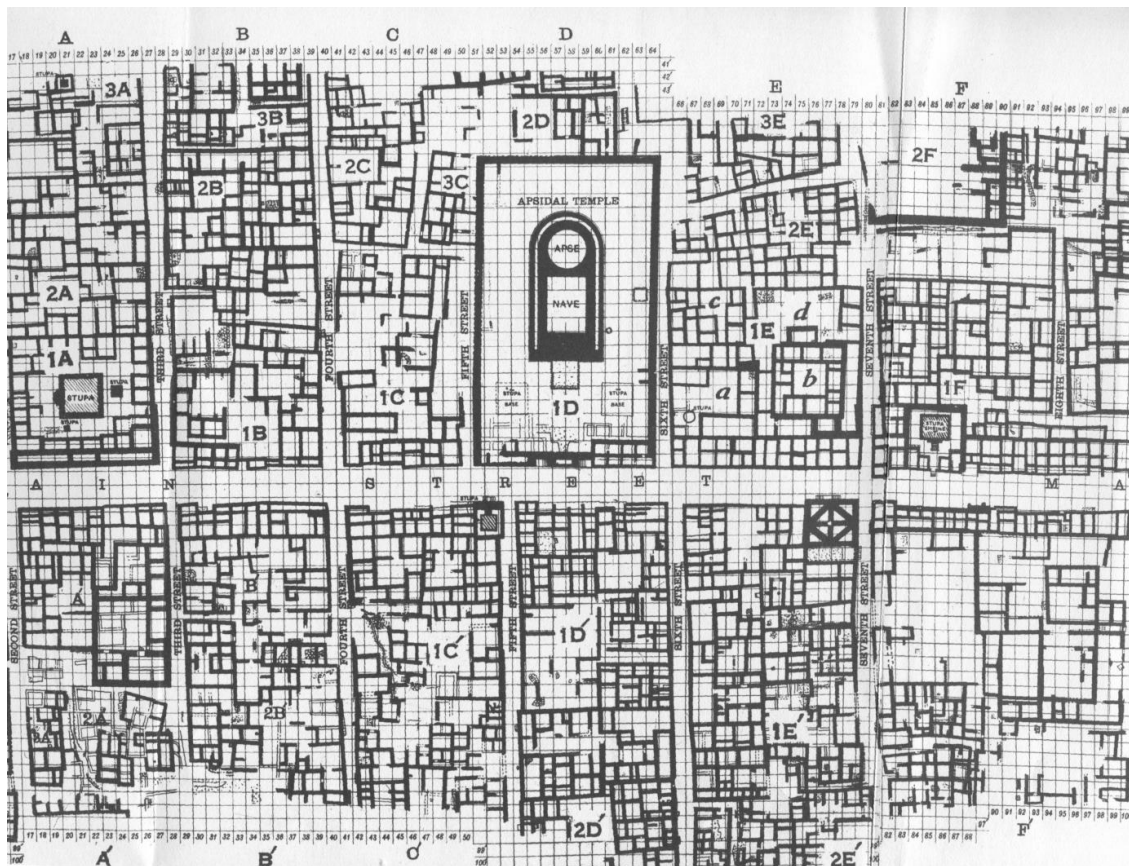


Figure 3.16. Marshall's plan of Sirkap with apsidal temple (from Marshall 1951: Plate 11).



Figure 3.17. Vatadage at Polonnaruwa, Sri Lanka

(Image source <http://www.panoramio.com/photo/11163644>).



Figure 3.18. Bas-relief of Bodhi Tree at Bodhi Gaya, Bihar, India. From the Marshall photograph collection, held by the Oriental Museum, Durham Univeristy (Volume 41 #3214).



Figure 3.19. Gandharan Buddhapada stone, an aniconic representation of the Buddha

(Image source

http://www.columbia.edu/itc/mealac/pritchett/00routesdata/0100_0199/kushanart/buddhapada/buddhapada.html).



Figure 3.20. Map showing the location of the site of Lumbini (from Coningham et al. 2013: 1104).

Figure 3.22. Aerial photo of Lumbini taken in 1969. The mound in the centre was made by Kaiser Shumsher J.B. Rana in his 1930s clearing activities of the site and has often been mistaken for and venerated as a stupa. From the Allchin collection held by the Ancient India and Iran Trust, Cambridge.

Lumbini Sacred Garden Magnetometer Survey

Figure 3

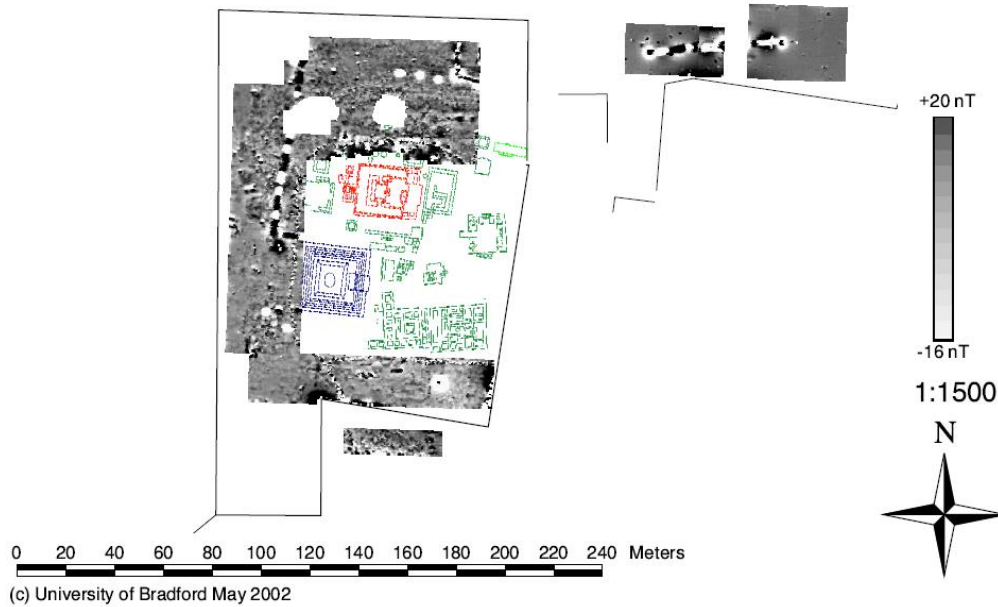


Figure 3.23. Results of the 1999 geophysical survey of the Sacred Garden at Lumbini (from Coningham et al. 2011).

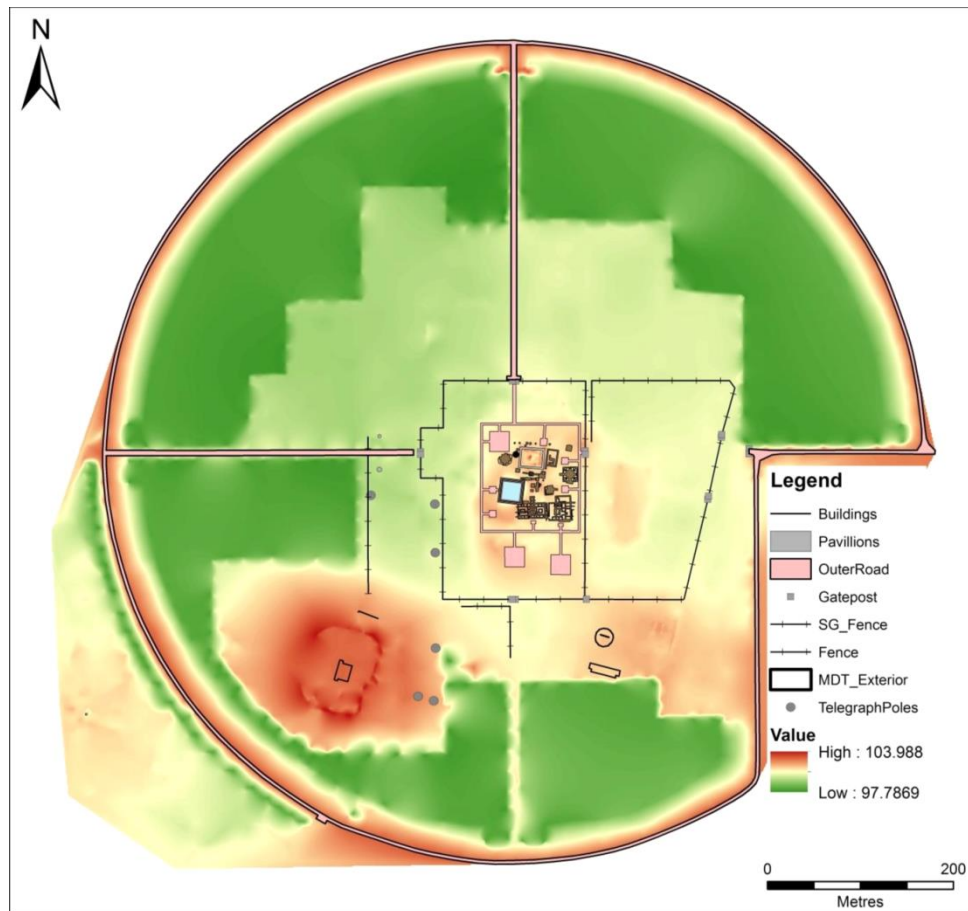


Figure 3.24. Topographic map of Lumbini. Map courtesy of Mark Manuel, Durham University.

Chapter 4: Lumbini

4.1 Introduction

The literature review contained in Chapter Two of this thesis demonstrated the predominant role played by textual sources in the excavation and conservation of Buddhist monuments, in the narratives of Asoka's propagation of Buddhism, and in the investigation and reconstruction of models of Mauryan Empire. As described in Chapter Three, this has led to an emphasis and a reliance upon certain archaeological 'markers' assumed to date to the Mauryan period in the phasing of both urban and Buddhist sites. These markers include urban features such as brick-built architecture, fortifications, ring-wells, drainage, and roads; 'elite' artefacts such as NBPW and new ceramic forms such as pear-shaped vases; punch-marked and uninscribed cast coins; terracotta figurines and ring stones; and most importantly the Asokan pillars and edicts. Given the probability of significant regional variation both before and under imperial rule and imperial 'tolerance' of local cultures discussed in Chapter One, a reliance upon these markers as homogenous indicators of either Mauryan imperial culture or Mauryan period occupation across the known extent of the Empire is problematic without rigorous archaeological testing.

Having defined the typical archaeological 'markers' used to identify both Buddhism and the Mauryan Empire, the objective of Chapters Four and Five is therefore to compare these anticipated markers with the archaeological evidence from Lumbini. The use of these markers in previous investigations at Lumbini will therefore be reviewed and examined in Chapter Four against the results of the 2011-2013 excavations at the site. Chapter Five will then examine the presence or absence of these markers and assess the evidence of regional variation and cultural continuity in the dated assemblages of Lumbini, in order to test the usefulness or problems of relying on these homogenous and potentially biased markers as archaeological indicators of occupation period and function.

This chapter will present the collated archaeological data relevant to the periods under discussion in this thesis from both the investigations of the site prior to 1997, and from the 2011-2013 excavations. The review of previous investigations includes a brief discussion in Section 4.3 of the textual analysis of Lumbini from various historical sources, whilst Section 4.4 includes a synthesis of

the phasing and interpretations drawn from the published archaeological reports of more than a century of excavations at the site. Section 4.5 will present the work on the typologies of artefacts, ceramics, and archaeological materials encountered and catalogued in the 2011-2013 excavations, and the phasing of these materials, assemblages, and site sequences based on the scientific radiocarbon and OSL dating of associated contexts and artefacts. The ceramic and artefactual analysis was conducted over three seasons at Lumbini and has been adapted for inclusion into this thesis by focusing on the Mauryan and pre-Mauryan phases of the site to investigate evidence of continuity and change across the 'Mauryan horizon'. Section 4.6 will then discuss the analysis of the accuracy and reliability of previous investigators evidence and interpretations of the site, based on the use of the 'markers' discussed in Chapter Three, in the light of the results of the 2011-2013 excavations and the assessment of this thesis.

The following chapter will then present the analysis of the 'markers' of Buddhism and of the Mauryan period against the 2011-2013 excavation data, and discuss the highlighted problems of relying on these markers as indicators of either Buddhism or Mauryan period occupation instead of the scientific dating of contexts and associated artefacts. The integration of data from both previous and recent investigations of Lumbini emphasises both the differences in excavation methodology and subsequent archaeological interpretation of the results at Buddhist sites, and of potential Mauryan period occupation.

4.2 Geography and Environment

The site of Lumbini is located 22 kilometres west of Bhairahawa in Rupa Devi District in the central Nepal Terai, in the upper middle part of the Ganga basin. It is situated between the Churia Hills (part of the Sivalik Range) to the north and the national border with India to the south. The climate in the Terai is tropical/subtropical monsoonal, with hot dry summers (from March to mid-June) followed by a rainy season that extends from mid-June through to mid-October and a cold dry winter from mid-October through to the end of February (Verardi 2007: 23). Average annual temperatures range from 20° - 24°C with highs reaching 39°C in the summer and 6° in the winter, and average rainfall ranges from 1900 – 2100 millimetres, about 80 percent of which is concentrated in the rainy season (Verardi 2007: 23).

The topography of the area is a low and featureless plateau of forest, grasslands, and marshes, with meandering rivers causing large-scale alluviation and dilluviation, frequent scouring and erosion of

banks and excessive flooding. Located in the catchment area of Harhawa River, the river basin is flooded several times each year, and each flooding lasts four to five days. The river develops a typical floodplain 100 to 120 metres in width, one to two metres below the surrounding grounds along the course of the River. The Telar River flows from east of the Sacred Garden. Telar is derived from 'tel' (oil), as water from the River is thought to be oily. The River is a landmark referred to by Chinese travellers as flowing close to the birthplace of Lord Buddha. The sediment transported by the rivers is mainly gravel, sand, and silt, rich in manganese and iron oxides (Verardi 2007: 25). In addition to the two major rivers, a number of open water bodies are in the surrounding lowland plains. The area consists of 58.8 percent grassland (400 hectares), 40 percent forest plantation (270 hectares), and 1.5 percent of open bodies of water (10 hectares), as well as a plantation of more than 370,000 saplings of 65 species (Bhuju et al. 2007: 91). The soil is clayish and firm, and its permeability is very low. Alkalinity and sodium levels in the soil are high, with very low phosphorus availability.

The agricultural landscape which surrounds Lumbini today consists of paddy and *dal* fields, but at the time of Lumbini's rediscovery in the late nineteenth century the area was densely forested and sparsely occupied by the local *Tharu* communities (Allen 2002: 263). Recent analysis as part of the 2011-2013 project has demonstrated that during the Chalcolithic period the area was also a cultivated floodplain, with evidence of clearing in the burning of vegetation (Coningham and Acharya 2013). This floodplain was modified around the sixth century BCE, in the pre-Mauryan period, through the cultural deposition of alluvial sediments to form a mound, presumably in order to aid settlement of the site (*ibid.*). This early history of the site will be explored further in the relevant section below.

4.3 Lumbini in the Texts

The various textual sources referred to in Chapter Two confirm Lumbini's location as the birthplace of the Lord Buddha. However, the descriptions of the site are varied and often stitched together through the use of several different textual sources. According to Buddhist literature, Lumbini was a beautiful pleasure garden collectively maintained by the Sakyas of Kapilavastu and the Koliyas of Devadaha or Ramagrama (Bidari 2002: 3). Aside from the description of events surrounding the birth of the Buddha, the Buddhist texts provide very few useful descriptions of the site at the time of the Buddha, as they were written at a much later date. As described in Chapter Two, the Buddhist texts were first written in Pali in the first century BCE and embellished and commented upon in the later

Sanskrit, Tibetan, and Chinese translations, and the descriptions of Lumbini have changed and developed each time the texts were translated (Cueppers 2013: 10). The *Pali Tripitaka*, *Suttanipata*, *Nidanakatha* and *Divyavadana* all refer to the events of the birth, but it is only in the accounts of the Chinese pilgrims Faxian and Xuanzang in the fifth and seventh centuries CE respectively that any useful description of the site is given. For example, the *Nidanakatha* describes Lumbini as:

...a pleasure grove of sal-trees belonging to the people of both cities...At that time, from the roots to the topmost branches, it was one mass of fruits and flowers amidst the blossoms and branches swarms of various-coloured bees, and flocks of birds of different kinds roamed warbling sweetly. The whole of Lumbini grove was like a wood of variegated creepers, or the well decorated banqueting hall of some mighty king (Davids 1880: 153).

Whereas in the *Divyavadana*, Asoka refers to Lumbini as a village (*game*), the accounts of the Chinese pilgrims, Faxian and Xuanzang, refer to Lumbini as a 'garden' or a 'park' (Beal 1869; Legge 1886). The tree under which the Buddha was born has also been called many different names: *lumba*, *pippala*, *shāla*, *plaksa*, and in the travel guides—*Asoka* (Falk 1998: 3).

According to the texts, the first Chinese pilgrim to leave an account of his visit to Lumbini was Zhi Sengzai between 350-375 CE. In the account of his visit, he mentions that the Asoka tree was still living and that an image of Maya Devi gripping the Asoka tree was placed below the tree, and that the two ponds where the two kings of the *nagas* spewed water and bathed the infant Buddha were still intact. He also described a shield of stones that Asoka placed around the seven footprints marking the spot where Siddhartha's feet first touched the earth as well as the ritual offerings of flowers and sweets that devotees left there (Deeg 2003: 56).

Faxian, a Buddhist monk from Shansi province in China was the next visitor to Lumbini to leave an account of the site, at the beginning of the fifth century CE. Faxian wrote:

Fifty le east from the city [Kapilavastu] was the garden, named Lumbini, where the queen entered the pond and bathed. Having come forth from the pond on the northern bank, after (walking) twenty paces, she lifted up her hand, laid hold of a branch of a tree, and with her face to the east, gave birth to the heir-apparent. When he fell to the ground, he (immediately) walked seven paces. Two dragon-kings (appeared) and washed his body. At the place where they did so, there was immediately formed a well, and from it, as well as the pond where (the queen) bathed, the monks (even) now constantly take the water, and drink it (Legge 1886: 67).

His description of the site is somewhat lacking but it is important to note the presence of monks at Lumbini during this period and he does mention that the Asoka tree was still living at this time. Faxian's description of the landscape of the Terai is more useful in gaining an understanding of the area in the fifth century CE, writing that, "The country of Kapilavastu is a great scene of empty desolation. The inhabitants are few and far between. On the roads people have to be on their guard against white elephants and lions, and should not travel incautiously" (ibid.: 68).

The next pilgrim to leave a written account of the site was Xuanzang, who travelled from the Ho-nan province in China in the seventh century CE and left a record of his work and travels in 12 books. Xuanzang described the location of the garden of Lumbini as being about 80 or 90 li from the Arrow Well. He described the bright and clear water of the bathing tank of the Sakyas, and 24 or 25 paces to the north of the tank he identified the now decayed Asokan flower tree under which the Buddha had been born. East of the tree was a *stupa* built by Asoka marking the spot where the two dragons bathed the body of Siddhartha and to the east of the *stupa* he described two fountains of pure water, along with two further *stupas*. To the south of this was another *stupa* and close to that were four more *stupas* built to denote the place where Sakra, the lord of the Devas, received the Bodhisattva in his arms. By the side of these *stupas* and not far from them was a great stone pillar erected by Asoka, on the top of which sat the figure of a horse, although Xuanzang noted that "an evil *naga's* ferocious thunder-clap split the pillar in the middle down to the earth" (Deeg 2003: 53). By the side of the pillar was a little river which the people of the place apparently referred to as the 'river of oil', which flowed away to the Southeast (ibid.: 50-55). Xuanzang also described the landscape from Lumbini to Ramagrama as "devastated fields and wild forests" (ibid.).

Xuanzang's description of Lumbini is by far the most detailed as it describes both the monuments and landscape. Other visitors from China arrived and left small accounts of their travels, including Wu-Kong and Fang Chi who visited the site in 764 CE. They both mentioned a great tope (*stupa*) marking the place of the Buddha's birth. Fang Chi was also the first to mention the inscription on the stone pillar which he believed recorded the circumstances of the Lord Buddha's birth (Watters 1973: 17). The next pilgrim to leave a record of his visit was Ripu Malla in the beginning of the fourteenth century CE. Ripu Malla, a prince of the Nagaraja dynasty of Western Nepal engraved his name and prayer on the Asokan pillar. The inscription reads:

Om Mani Padme Hum
Sri Ripu Malla Chidam Jayatu
Sangrama Malla (Bidari 2013: 54)

The first phrase is a Mahayana Buddhist prayer, followed by 'May Prince Ripu Malla be long victorious' (Bidari 2013: 54). This inscription indicates that Lumbini and possibly Kapilavastu were widely known to be the Birthplace and Homeland of the Buddha into the fourteenth century. This marks the last time Lumbini is mentioned in the historical record until its rediscovery in the late nineteenth century. There are a few accounts that describe the site after its 'rediscovery' and before it was irrevocably altered by Kaiser Shumsher J.B. Rana in the 1930s. One account was by Anagarika Dhammapala of Sri Lanka, who together with the Prince of Thailand visited the site on April 6th 1898. They described the mound as being covered with bushes, with the pillar protruding two and a half to three metres high. They also described the image of Maya Devi in a temple comprising a small room several feet into the mound and accessible only by descending down some steps guarded by a Gurkha guard of Nepal. They found that Hindu pilgrims were offering *puja* and animal sacrifices to the image (Dhammapala 1898: 17). Ekai Kawaguchi, a Japanese Monk, who took pilgrimage to the site in 1912 was also shocked to find that people were making animal sacrifices to the local goddess on the site and wrote to the Government of Nepal and the practice was soon stopped (Subedi 1999: 135). There have been many other small accounts of the site in the early nineteenth century, but none that are especially useful in gaining an understanding of the archaeology of the site. We know from Faxian's account that the landscape around Lumbini and Kapilavastu was desolate and that settlements were few and far between, but that there may still have been a community of monks living at the site in the fifth century CE. From Xuanzang's account we know that the landscape was in a similar state of desolation in the seventh century CE. One aspect of the site that is altogether neglected by the Buddhist texts, the accounts of the Chinese pilgrims, and by the later accounts is that of Lumbini *game*, the village mentioned in the Brahmi inscription on the Asokan pillar:

King Piyadasi (Asoka) the beloved of the Devas in the twentieth year of the coronation himself made a royal visit; Buddha Sakyamuni having been born here, a stone railing was built and a stone pillar erected. The Bhagavan having been born here, Lumbini Village was tax-reduced and entitled to the eighth part (only) (Buhler 1898).

Although the textual sources provide us with glimpses of Lumbini at the time of the Buddha, and of the development and decline of the site over the last two thousand years, the descriptions offer little in the way of details of the site, its composition, or management. As has now been well established, these textual sources also come with numerous issues of reliability and potential bias, and cannot be relied upon entirely without the material confirmation of the archaeological remains. The scientific

archaeological investigation of the site and its' associated material culture has far more to offer, not only in terms of bridging the chasms in our knowledge but also in offering confirmation or contradiction of the textual sources. These remains may also shed light on the areas and features not related in the histories, such as the role of Lumbini *game* in the history of the site, its relationship with the monuments, and the record of early Buddhism at the site. It is possible however, that the textual sources, having led to the rediscovery of the site in the nineteenth century, may yet prove useful for the interpretation of the material remains.

4.4 Archaeology of Lumbini 1899 - 1997

Having introduced both the geography and environment of Lumbini and the descriptions of Lumbini in the textual sources, this section will outline the archaeological phasing of the site prior to the 2011-2013 investigations. This phasing is based on a synthesis of the data available in published reports on the excavations of the nineteenth and twentieth centuries summarised in the brief history of investigation at Lumbini presented in Chapter Three. Acknowledgement of the recent artificial taphonomic processes that have altered the site is crucial to understanding the complicated phasing proposed by previous scholars and summarised below, which has clearly been affected by the alteration and 'conservation' of the site. In spite of the problems created by these processes for the interpretation of the monuments and remains, this synthesis is essential for identifying the archaeological markers that have been, and continue to be used to date Mauryan period and pre-Mauryan phases in archaeological sequences in the northern part of the Subcontinent. Although this thesis is primarily focused on the pre-Mauryan and Mauryan phases of Lumbini, the phasing of the site that follows deals with the entire sequence excavated up until 1997, in order to better understand and account for the processes of site-transformation that have occurred.

As described in Section 3.6.1, the site of Lumbini has undergone numerous excavations and investigations during the last century, beginning with P.C Mukherji in 1899 and continuing most recently with the Japanese Buddhist Federation, Department of Archaeology, and the Lumbini Development Trust in 1992-1997. Each of these excavations was carried out using different excavation, surveying and recording methods and none of the subsequent reports has provided a thorough and comprehensive phasing of the site. Indeed, most of the available reports on the site have failed even to date the structures, and where estimated dates have been provided, explanations of the methods used, artefacts unearthed or contexts explored have been patchy or missing. In addition, there is no single accepted system for identification of structures and very few

authors have published maps, sketches, plans, or photographs, which makes a re-examination of their findings extremely challenging. This situation has been exacerbated by the loss of excavated material and excavation records from the site in a fire at Singha Durbar in 1973. Finally, the conservation carried out on the site has radically changed the way in which the site is viewed, and the reuse of materials such as archaeological brickbats to repair and reconstruct the monuments has given them a uniform appearance, making it very difficult to date and phase them as they now stand. Based on the limited data available, it has been possible to identify at least seven stages of construction within the site using Bidari's dating scheme (2004: 180):

- Pre-Mauryan (fourth century BCE)
- Mauryan (third century BCE)
- Sunga (second century - first century BCE)
- Kushan (first century BCE - second century CE)
- Gupta (third - ninth century CE)
- Medieval (ninth - fourteenth century CE)
- Modern (nineteenth - twenty-first century CE).

During these seven general periods of construction, a number of different structures were built and rebuilt including *stupas*, *viharas*, *chaityas*, wells, tanks, and temples (Figure 4.1). The following phasing of the site is based on the resources available prior to the 2011-2013 excavations. This phasing will be compared in Chapter Five of this thesis with the new archaeological data from Lumbini, detailed in Section 4.5 below.

4.4.1 Pre-Mauryan

The earliest known phase of Lumbini has been described as pre-Mauryan, based on the presence of Northern Black Polished Ware, which dates to between the sixth and third centuries BCE (Erdosy 1995: 75). In the 1970s, Rijal identified a rectangular structure towards the north-west corner of the Maya Devi Temple, approximately 9 metres north of the Asokan pillar (1979: 14) (Figure 4.2). The structure comprised two courses of burnt bricks, and measured approximately 4.7 metres north-south and 3.8 metres east-west and was found at a depth of 60 centimetres below the ground level (*ibid.*). Rijal described a sealing layer containing a row of Mauryan brickbats which looked like a rammed floor, beneath which lay typical NBP wares and some degraded grey wares. As the sealing layer above the chamber contained a platform-like Mauryan structure (1.75 x 1.5 metres) built with

three courses of bricks, Rijal posited that the structure below must have been pre-Mauryan (ibid.). Other evidence of pre-Mauryan occupation of the site comes from excavations at the Village Mound which were directed by Rijal in 1970 and 1971. However, very little information on the excavations is available and Rijal merely mentioned that the earliest habitation of the village must have started in the NBPW period based on its presence at the lowest levels (ibid.: 11f).

4.4.2 Mauryan

The Mauryan, or rather 'Asokan' period, is thought to mark a significant phase in the development of Lumbini. Whilst the site was likely already to have been a place of pilgrimage, the visit of Asoka in 249 BCE started a phase of brick-built construction. According to the available research before the present project, this phase of construction is represented by a *vihara*, the Asokan pillar, the first two phases of the Maya Devi Temple, and numerous *stupas* (Figure 4.3). The *vihara* (V-2) was excavated by Mishra in the 1980s and is located to the south of the Maya Devi Temple with individual cells on all four sides and a meeting hall in the centre (Mishra 1996: 40-41). Unfortunately, there was no mention of how the structure was dated nor any plans or photographs of the excavations. During his earlier excavations in the 1970s, Rijal described two *stupas* to the north of the Maya Devi Temple (S-3 and S-4) apparently datable to the Mauryan period, but again, no evidence for this dating was provided in his report (Rijal 1979: 13). He also identified another Mauryan *stupa* with a square foundation 1.5 metres north of the Temple (S-6), which had been cut down from the top by 90 centimetres, most likely during the excavations of Kaiser Shumsher J.B. Rana in the 1930s (ibid.). The base of the *stupa* contained the lid of a cylindrical gold casket in association with some charred human bones and other ritual offerings, most likely also disturbed in the 1930s (ibid.). Mishra, in his 1996 report, also mentioned a further two plain rectangular *stupas* belonging to the Mauryan period, one 10.7 metres north of the Maya Devi Temple and the other inside a big square *stupa* (1996: 42). It is unclear which structure he was referring to 10.7 metres north of the Temple, as none of the plans have depicted a *stupa* in this location, but the big square *stupa* might be located south of the Maya Devi Temple, and possibly identified in Bidari's plan as S-30.

The Asokan pillar provides undisputable evidence of Mauryan construction at the site. The pillar is made of polished Chunar sandstone, weighs 33.5 metric tons and stood at a height of 11.18 metres, 4.17 metres of which is buried underground (Bidari 2002: 63). The pillar is a truncated cone which tapers from 79 centimetres at the base to 67 centimetres at the top (ibid.: 64). Mitra reported that the bottom of the pillar was inserted into the centre of the base slab, with a brick foundation

underneath (Mitra 1972). The pillar has suffered some damage as a vertical fissure runs down the middle and the top is broken off, and there is no trace of the horse capital as described by Xuanzang (ibid.: 197) (Figure 4.4). The Asokan inscription on the pillar is in Brahmi script and has been translated:

By King Piyadasi, the beloved of the gods (who) having been consecrated twenty years (having) come himself personally (here) to offer homage, or celebrate, because Shakyamuni Buddha was born here, was caused both a Silavigadabhica to be built and a stone pillar to be set up. (And), because the Lord was born here, the Lumbini village was made free from taxes and liable to pay (only) one-eighth part (of the produce) (Uesaka 2001: 75).

The only other structure that has been scientifically dated to the Mauryan period is that of the Maya Devi Temple. According to the JBF excavations in the 1990s, the first period of construction of the Temple can be dated to the Mauryan period and appears to have had at least two phases, referred to as the Lower and Upper structures, and hereafter as Phase 1 and Phase 2. This period of construction was dated by brick design, the radiocarbon dating of a single charcoal fragment, and small artefacts found in construction contexts, such as two types of NBPW, grey coloured pottery, red coloured pottery, a marked coin, and a copper coin (Uesaka 2001: 55).

Mauryan Temple Phase 1

According to the JBF, the earliest phase of the brick-built Temple was a double walled structure, with an external pavement and internal floor of brick, and nine internal 'chambers'. These 'chambers' were square or rectangular brick-lined pits, approximately 1.5 metres deep, and arrayed in three rows of three. It appears that eight of the pits were filled almost to the top in Phase 1 with rammed earth, and the ninth, referred to by the JBF excavation team as Chamber 2, was filled with bricks. A large black stone was cemented in the top layer of bricks and has been interpreted as marking the actual birthplace of the Buddha (Uesaka 2001: 38) (Figure 4.5). Both the inner and outer walls surrounding the temple have foundation cuttings, with crushed brick at the base to create a footing for construction. A single course of bricks was laid in a herringbone pattern to create the pavement found on the north and west sides of the Temple, and a similar pattern of brick-laying created a floor between the double walls and inside the Temple (ibid.).

Mauryan Temple Phase 2

Shortly after the construction of Phase 1, there appears to have been a period of reconstruction. This phase more or less followed the ground plan of Phase 1, and used almost identical bricks. It is not known why this rebuilding took place, but it seems likely from the changes that it was due to instability in the structural design, or to counter against the regular seasonal flooding of the area. A further six 'chambers' were dug through the brick floor of the temple, three to the east, and three to the west of the original nine. This brought the total number to 15 chambers (ibid.: 39ff). The floor of the Temple itself was then also raised by several courses of bricks, and the pits filled accordingly, though again, it is thought that this fill did not quite reach the floor level of the Temple. Chamber 2 was again filled up with brick, burying the marker stone, whereas the remaining chambers were filled with earth (ibid.). The walls were built up from a surviving 12 or 13 courses of bricks extant from Phase 1, and are narrower than the earlier structures, so that the lower part of the walls project in plan by approximately 20-30 centimetres compared to the upper Phase 2 courses. A series of support sections were also loosely built between the outer and inner walls at this time, to shore up and stabilise the structure of the inner wall. These support sections are in most cases separated from the brick floor between the double walls by a layer of earth, presumed to be a natural build up within the space, rather than an intended foundation (ibid.).

4.4.3 Sunga

There is some evidence of a Sunga period of construction at the site although it has not been as readily identifiable as some of the other phases of development. Construction work that has been identified as Sunga includes a *vihara* (V-3) to the west of the Mauryan *vihara* (V-2), the expansion of the big square Mauryan *stupa* mentioned by Mishra (S-30), and a new period of construction at the Maya Devi Temple (Figure 4.6). Mishra barely mentions the *vihara*, stating that the only Sunga structural phase of the structure that could be found were the outer walls, as the rest of it was badly damaged by later periods of construction (1996: 41). The Sunga phase of construction on the big square Mauryan *stupa*, also identified by Mishra, comprises the building of a thick wall around the original *stupa* and a second wall built 1.5 metres from this to create a processional path (ibid.: 42). The JBF noted two distinct periods of construction of the Maya Devi Temple following the Mauryan period, but they did not provide any dating evidence for the second phase, and given the nature of the construction carried out it seems more likely that these were two phases of the same period.

However, no material was reported from the remains that would assist in dating the relevant activities.

Sunga Temple Phase 1

Apparently, an exploratory pit was dug into the brick fill of Chamber 2 in the Temple during this period, in order to confirm the position of the marker stone buried by the Period I Phase 2 construction work. This new pit was then again brick-lined and refilled with earth and broken bricks, and the top was sealed with four large pieces of sandstone, creating a new marker and focus for the Temple (Uesaka 2001: 56).

Sunga Temple Phase 2

A large brick structure was then erected over the marker stones, presumably as a form of *chaitya*, or *stupa*. This structure was square, measuring approximately 7 metres wide on each face, and stood about 2 metres high. Built into this structure were five chambers, four positioned inside the corners and one central chamber aligned over the sandstone marker. The construction was then capped, but it is not known whether this cap was a plain flat platform or decorated with further structures (Uesaka 2001: 56).

4.4.4 Kushan

The available data for the Kushan period construction at Lumbini is considerably better than the Sunga, and during this period several *stupas* and both existing *viharas* were rebuilt and enlarged, and a new *vihara* was constructed (Figure 4.7). The Maya Devi Temple also underwent a further stage of construction, and a new well was created in the Nursery complex of the Lumbini village site. The new *vihara* (V-1) was constructed to the east of the existing *viharas*, and appears to have been rectangular in shape as opposed to the existing square structures. Mishra describes the structure as having living rooms for the monks on three sides, to the north, south and east, as well as a meeting hall on the north side (1996: 41). Again, Mishra did not provide evidence for the dating, or any plans or photographs. He did, however, mention that there are two brick *stupas*, one square and the other circular, and a well built of wedge-shaped bricks in the courtyard of the *vihara* (ibid.). Mishra also

mentions the reconstruction of the existing Mauryan *vihara* (V-2) which now had 14 cells, a courtyard, and a veranda (ibid.). Mishra identified further construction work during the Kushan phase of the Sunga *vihara* which added a long drain starting from a room on the east and running through the central area, before turning southwards for disposal outside the walls, making a rough “L” shape in plan (ibid.). He also mentioned that there were two small water storage tanks in the south-east room of the structure and that the rooms may have been used as a kitchen. One Kushan copper coin was also found in one of the south rooms (ibid.). With only sketch plans to accompany this phasing, it is difficult to identify exactly which parts of the structures Mishra is referring to, but it is possible to trace a rectangular structure that is built over both the Sunga and Mauryan *viharas* (V-2 and V-3) which may represent this phase.

Several *stupas* to the north of the Maya Devi Temple were also enlarged during this period with the encasing of earlier rectangular structures within new circular domed *stupas* (Rijal 1979: 9). The brick well discovered at the nursery complex of the village site was dated based on the various associated animal and bird figurines which were judged to belong to the Kushan period (Rijal 1996: 8). The well was built of 29 courses of solid concave bricks and the bottom level contained some Kushan period spouted pots and a faceted jar (ibid.). The final period also saw a further redevelopment of the Maya Devi Temple, which the JBF report refers to as Stages four, five and six. However, based on the structural design of these stages, it seems likely that they were actually three phases of construction in a single stylistic period, and so they are described here together.

Kushan Temple Phase 1

This phase saw a new period of major construction work, as a large brick and earth platform was created to surround the ‘Sunga’ phase 2 *chaitya*. The containing wall of this platform has not survived, but may have extended to observe the plan of the Mauryan inner walls on its North, West and South sides, but falling short of the Eastern walls by around 6 metres (Uesaka 2001: 58ff).

Kushan Temple Phase 2

A new containing wall of fine clay bricks was built around the platform, which cut off and sealed the ends of the Phase 1 drainage trenches. A hardened surface of earth and traces of plaster sealed the fill of the platform, and well packed rows of bricks lining the edges of the platform may have served

as a pavement or floor surface. A new entrance stair, decorated with plaster, was built in the middle of the eastern wall, and led up to this brick surface (Uesaka 2001: 58ff).

Kushan Temple Phase 3

A new, smaller platform was then built onto this floor level, and a small square votive tower created on top of it, directly over the central chamber of Period II, and therefore the marker stone of Period I. The base platform of this phase measured 3.1 x 4 metres, and was paved with brick and *surkhi*. The votive *chaitya* tower was again constructed in brick, and measured around 1.5 x 1.3 metres wide, and around 45 centimetres high (Uesaka 2001: 58ff).

4.4.5 Gupta

The Gupta phase of construction at the site is quite distinct as new architectural styles were employed in the building of *stupas*, *viharas*, and the Maya Devi Temple (Figure 4.8). Mishra describes the *stupas* built during the Gupta period as having two shapes, square *stupas* with niche projections on all four sides and stepped rectangular *stupas* with a flat top (Mishra 1996: 42). Some of the square structures had a line of tapered and 10cm projected bricks separating the lower area from the dome, and in one *stupa* there were pair of flowers incised on all four corners (ibid.). Mishra also mentioned that 19 terracotta seals with Gupta characters were found at a square Gupta period *stupa*, however, he does not give any indication as to which structure he is referring to. The only specific *stupa* that Mishra refers to as having a Gupta construction phase is that of the large square Mauryan *stupa* (S-30) that was previously renovated in the Sunga period. The Gupta period added a 10 centimetre wall on all four sides in the square basement (ibid.). Based on Mishra's description of Gupta period *stupas* on the site, it is possible to identify several other structures that may have been built or enlarged during this period. An additional period of construction work on the *viharas* has also been noted, in which the orientation of the Kushan period structure (V-1) was changed altogether from a north-south to an east-west alignment. In addition, Mishra mentioned that the *vihara* on the far west, V-3, was also rebuilt in the Gupta period, to provide a total of 11 rooms on the east, north, and south sides of the building with an *aposthagarasala*, or meeting hall, in the centre (ibid.: 41). Mishra noted, only briefly, his discovery of the basements of two Gupta 'temples' (B-3) on the south side of the Maya Devi Temple but did not provide further details concerning them (ibid.). A fourth period of construction of the Maya Devi Temple, which is also thought to have

occurred in this period, was defined by the creation of an entirely new style of temple, on top of the platform already created, but on a new plan.

Gupta Temple Phase 1

The first phase of this period saw the building of a new surface around the Kushan *chaitya*, which brought the surface level of the entire upper platform to the same height as the *chaitya* (Uesaka 2001: 61ff).

Gupta Temple Phase 2

A small temple or shrine was then built on top of this platform in highly decorated carved brick. The building was described by PC Mukherji as a seven-bayed *saptaratha*, on the basis of its external shape (Figure 4.9). The plan provided two cells, referred to as a chancel and an antechamber. The floor of the chancel was directly above the base platform of the Kushan period phase 3 *chaitya*, and followed the same measurements and plan, but was raised 50 centimetres above the top of the *chaitya* tower by several courses of brick. A key vertical line was therefore maintained throughout all the construction phases of the temple, between the Mauryan period marker stone, and through a series of votive and sacred structures. A sculptural image of the Birth of the Buddha was also mounted in the chancel, set into the floor just away from the west wall. A flight of six steps led up east out of the chancel to the antechamber, and two exits from this room led north and east to the platform and staircase that lead back to ground level. Whether the level of the antechamber was deliberately raised above the level of the chancel floor to further delimit the sacred space, or whether this was a development of further phases of construction, is not described.

4.4.6 Medieval

Very little has been written about this period at Lumbini, as the excavations at the village site only revealed occupation layers leading into the Gupta period, but there is evidence that Lumbini remained a site of pilgrimage well into the Medieval period (Figure 4.10). The main indicators of this are an inscription on the Asokan pillar and a number of votive stupas built on top of existing structures. The inscription on the pillar is above the Asokan inscription and marks the visit of Ripu

Malla in the fourteenth century CE. The inscription has been used as evidence to support the idea that Lumbini and Kapilavastu were widely known to be the birth-place and homeland of the Buddha prior to their rediscovery in the late nineteenth century (ibid.). It was also during this period that a number of votive stupas were erected across the site and Bidari believes that the 16 votive stupas east of the Maya Devi Temple (S-16), first mentioned by Mitra in 1962, were constructed sometime between the visits of the Chinese travellers in the seventh century CE and Ripu Malla's visit in the fourteenth century CE (Bidari 2002: 80). Also Mishra describes a series of small votive *stupas* that were erected during this period on top of the big square *stupa* (S-30), of which only nine still survive (Mishra 1996: 42).

4.4.7 Modern

The final period of construction and deposition at Lumbini occurred in the modern period, between the rediscovery of the site in 1896 through to the present day. Indeed, the site has experienced significant changes over the last century as each excavation has changed the landscape in numerous ways. This is particularly significant with the Sacred Garden and the Maya Devi Temple as the excavation and conservation efforts of the twentieth century have irrevocably changed the focus of the site, the way in which visitors experience the site, and the archaeological signature.

Between the fifteenth century and the late nineteenth century, there is very little evidence of construction on the site, and it seems that the site fell into obscurity and the monuments were gradually covered by vegetation. When Dr. Fuhrer and General Rana rediscovered Lumbini in 1896, they found a "mutilated pillar rising about 10 feet [3 metres] above ground" (Fuhrer 1972: 28). Fuhrer also described "a small modern mean-looking building, which was about four years ago erected by a Saiva ascetic on top of one of the ruined stupas..." (ibid.). Presumably the ruined structure he referred to were the remains of the Gupta phase of the Maya Devi Temple. At some point, the upper levels of the Gupta shrine were demolished or collapsed, and in the 1890s a new temple was built on the same wall plan, but in a simple, square style, which was recorded by Mukherji in a photograph from 1899. The nativity image was at that time thought to represent a local deity, Rupa Devi, and was worshipped as such. A house for the priest was also constructed just north of this temple on the grassy mound that now buried the earlier platform and temple stages. Fuhrer also described four ruined *stupas* close to the pillar, the bathing tank, the two fountains, and the well mentioned by the two Chinese pilgrims (ibid.). Unfortunately, Fuhrer did not provide any plans of the site, but it was not long before P.C Mukherji visited Lumbini in 1899 to conduct brief

excavations and plan the site. As noted above, when Mukherji visited the site it was in a similar condition to that found by Fuhrer and Rana three years previously. He recognised and excavated the decorative plinth of the Maya Devi Temple, as well as numerous stupas and structures surrounding it (Figure 4.11). His actions initiated a new period of development for the site, as he began the process of removing the accumulated debris and sediment burying the garden, uncovering the structures, and creating an artificial landscape in which centuries of site development and phases of construction are exposed simultaneously to the visitor.

The second phase of modern construction resulted in significant changes to the appearance of the site. Kaiser Shumsher J.B. Rana's excavations from 1933-39 were unrecorded, but the few photographs of the site taken before and shortly after this work indicate demolition and reconstruction activity rather than archaeological excavation. All that is certain is that Rana demolished a number of the smaller *stupas* that surrounded the original Mauryan *stupa* (S-6) and destroyed much of the ornately decorated plinth and brick platform of the Maya Devi Temple that had been built in the Gupta period (Allen 2008: 233). He replaced the Hindu temple of the 1890s with another, set on a modern brick platform (*ibid.*). Rana also dug out and re-shaped the Maya Devi bathing pool into a rectangle with stone steps, similar to a bathing ghat. The two mounds of spoil from these excavations, located to the north and south of the new temple, have since been mistakenly venerated as earthen *stupas* (*ibid.*) (Figure 4.12). This phase of activity changed not only the physical site, but the public image of the site significantly. Lumbini was no longer an overgrown mound of ruins hidden in the Terai, but a curated site with a single focal point – the Maya Devi Temple.

The next phase of development for the site was carried out under the guise of conservation work. After U-Thant visited the site in 1967, and expressed his hopes for Lumbini, the next two decades of archaeology were focused on repairing and conserving the site. The monuments exposed and repaired by Kaiser Shumsher J.B. Rana had slowly eroded as the seasonal rains wore away the fragile brickwork, and some of the archaeological remains were cannibalised by pilgrims and workmen for temporary ovens and new structures. Recognising that action was needed to prevent further destruction, the LDT and Government of Nepal commissioned a Master Plan for the conservation of the site, and Kenzo Tange's design has formed the basis of activity within the site ever since. The archaeological activities of the 1970s and 1980s were therefore focused on the surviving standing remains, and both Mishra and Rijal worked to restore and rebuild the majority of the structures at the site. However, whilst this work did indeed help to secure the structures from further harm, the reconstruction work was based on the excavators' hypothetical interpretations of the site, and the

ways in which they imagined the structures might have appeared. It is not known whether these interpretations had any evidential basis, but the work has certainly altered the appearance of the site. Much of the work, for example, was carried out using materials that Rijal and Mishra sourced from new and old spoil heaps, parts of collapsed remains, and accumulated on-site debris. Many of these materials were Mauryan brickbats, and as a result, many monuments at Lumbini have a uniform appearance. The surrounding landscape has also been altered in accordance with the design of the Master Plan. The changes included the construction of a levee and water body around the central archaeological site, dividing Lumbini into three zones, and significantly affecting the way in which the site may be accessed and viewed (Weise 2008: 34) (Figure 4.13).

The final phase of the modern development of Lumbini involved the joint excavations of the JBF, DoA, and LDT in the 1990s. During this time, the Maya Devi Temple was deconstructed one phase at a time until the excavators reached what they believed to be the Mauryan period of brick construction, and this is how the site is now seen by the visitor. The team did, however, leave a pillar-shaped baulk of brickwork in the north-west corner of the Temple in an attempt to display the phases of structural stratigraphy (Uesaka 2001: 91). The excavators then protected the Mauryan remains by refilling the earliest internal 'chambers' with sand and brick, and building a temporary shelter of scaffolding and corrugated iron over all the remains in the temple (*ibid.*: 93) (Figure 4.14). Finally, due to damage by high winds and extreme weather conditions a more permanent concrete and brick shelter was built to protect the Mauryan remains, and the marker stone inside the Temple was sealed beneath a bulletproof sheet.

Having outlined the archaeology of the site and the phasing of the site prior to the 2011-2013 investigations, the following section will present a selection of the results from the archaeological investigations carried-out in the 2011-2013 field seasons, which have significantly improved the understanding of both the nature and sequence of the site.

4.5 Results of the 2011-2013 investigations at Lumbini

Due to the earlier reconstruction and conservation efforts outlined above in Section 4.4 and in Chapter Three, it is no longer possible to date the surviving monuments by design, and therefore a principal aim of the 2011-2013 project was to develop structural, ceramic, and artefactual sequences focusing on the transitional phases between the Pre-Mauryan and Mauryan periods. The phasing of the site as a result of this project will be discussed below in Section 4.6. In order to justify this

phasing however, the current section will review the evidence of the ceramics and artefacts recovered during the course of the 2011-2013 excavations.

The total assemblage of archaeological materials, ceramics, artefacts, and architectural remains was catalogued on site by the author as part of the ongoing excavations. The materials were organised by context and sorted into wares and stylistic typologies. The preliminary analysis and phasing of these wares and typologies will be summarised in the following sections, and discussed with reference to the specific areas of the site in which these materials were encountered. The following chapter will then explore the detailed analysis of these sequences, and will discuss the comparative introduction or decline of specific wares and forms against each other, comparing the scientifically dated results of this second phase of analysis against the established phasing and use of archaeological 'markers' currently and typically used in archaeological investigations of pre-Mauryan and Mauryan period sites. Before this discussion can take place however, it is necessary to define the typology of ceramic wares and other archaeological materials encountered and recovered.

4.5.1 Ceramic Wares

The ceramic assemblages recovered from the 2011-2013 excavations have played a significant role in the construction of a new cultural sequence at Lumbini, alongside the OSL and radiocarbon dating of associated contexts. Until now, the ceramic traditions of the Terai have been a fairly neglected area of study, and the general assumption has been that they belong to the same cultural sequence with the same date ranges as elsewhere in the Ganga Plain. Whilst in many ways this assessment is correct, and the ceramic traditions of the Terai, and Lumbini in particular, are broadly similar to those of other sites, particularly on the Middle Ganga Plain, it is also possible to argue that the sequence at Lumbini is unique and does not fit with Purashottam Singh's model for the ceramic sequence of the Middle Ganga Plain mentioned in Chapter Three. Singh describes a model that places Cord-Imprinted Ware as the hallmark of Gangetic Neolithic culture, succeeded by Black and Red Ware in the Chalcolithic (so-called Narhan culture), and Northern Black Polished Ware in the Iron Age/Early Historic Period (Singh 2008). Whilst there is no doubt about the antiquity of Cord-Imprinted Ware, excavations at both Gotihawa and Lumbini have shown that CIW is still the dominant ware in the late Chalcolithic, tapering off but not disappearing until after the Early Historic Period. The ceramic wares found at Lumbini are found at all of the excavation locations, including the Maya Devi Temple, the Sacred Garden, the Village Mound, the Helipad, and the Nursery Well.

As described in Chapter Three, Northern Black Polished Ware has been used as one of the primary indicators of Mauryan period occupation at sites both within and outside the Ganga Plain (Figure 4.15). However, as most excavation reports in South Asia do not publish the exact numbers and percentages of ceramics, it is difficult to say how prolific it is at each site. A few sherds of NBPW were found at the Lumbini Village Mound and Maya Devi Temple. This fine ware is black, lustrous, and burnished with black sections, very thin walls, and a thin black slip (Verardi 2007: 249). The well-levigated clay is fired at a temperature of 950°C and at other sites the colour of the surface of NBPW can range from coal-black through steel-grey or silvery to golden (Lal 1954: 51), but at Lumbini the NBPW is primarily coal-black. Its glazed appearance is due to high and consistent firing temperatures as well as the enrichment of the slip with iron and potassium (probably red ochre and plant ashes) (ibid.). NBPW is a luxury ceramic and found throughout the Subcontinent, and is generally believed to have originated in North India with an early phase between 550 and 400 BCE, a middle phase between 400 and 250 BCE and a late phase which ended c. 100 BCE, as described in Section 3.4.4 (Erdosy 1995: 105). It is often associated with the Mauryan period as its' distribution seems to follow the geographical extent of the Mauryan Empire and the time period associated with it (Erdosy 1995: 75). The dominant forms were tableware, including *thalis* (Figure 4.16) and deeper smaller bowls, but the forms from Lumbini are limited to *thalis*. The assemblage of NBPW has been frequently described as 'deluxe' tableware (Lal 1955: 15). It has a wide distribution extending from Taxila in the West, Bangara in the east, Anuradhapura in the south (Coningham 1999) and Nepal in the north (Verardi 2007: 249; Coningham et al. 2014).

Proto-Northern Black Polished Ware is a ceramic ware first identified by Verardi at Gotihawa and is found in all four excavation sites at Lumbini. This fine ware is thought to mark the transitional phase from Black Slipped Ware (BSW) to Northern Black Polished Ware (NBPW) and can be identified through the lustrous black surface with red spots (Verardi 2007: 248) (Figure 4.17). Other characteristics include a black section, a thin slip, fairly thick walls, and the *thali* form. Other forms are similar to BSW and include closed mouth vessels, inverted *thalis* (SF 10247), *mataka* (SF 5514) (Figure 4.18), open bowls (SF 4784 and 5522) (Figure 4.19), and a small globular jar (SF 3854). The highly polished appearance is achieved by firing at very high temperatures and the unique red spots are evidence of a problem in the firing process (ibid.). Verardi's Proto-Northern Black Polished Ware period is between the twelfth and eighth centuries CE with a lingering presence through the Mauryan period but disappearing altogether in Sunga and Kushan periods. The P-NBPW found at Lumbini is therefore also used as a pre-Mauryan indicator.

Cord-Imprinted Ware (CIW) has been identified as a distinct and homogenous pottery class with the recent excavations at Gotihawa by the Nepali-Italian Archaeological Mission. The CIW found at Lumbini is of a medium fabric with a distinct cord or mat imprinted pattern formed by the production of large vessels as the clay was moulded in a cord basket or wrapped in a mat (Verardi 2007: 246). Forms of CIW found at Lumbini are limited to large upright *ghara* or *mataka* (storage jars) with a simple everted rim, but these are often difficult to recognise as the cord impressions are commonly found only on the shoulders, and as a result CIW is often mistaken for Red Ware (Figure 4.20) (ibid.). CIW is one of the oldest ceramic traditions on the Subcontinent, thought to be linked with the first rice agriculture on the Ganga Plain and identified by Singh and others as the hallmark of the Neolithic in the Ganga basin. Others have linked it back even further to an origin in South East and East Asia, but as similar wares are found throughout the world at this point, it is likely that there were several points of origin for the ceramic tradition. Mapping the geographical extent of CIW is difficult, as it has often been identified as Red Ware outside Neolithic contexts, but it has been identified at a number of sites including Gotihawa (Figure 4.21), Narhan, Kausambi, Hatapatti, Imlidih Khurd, and Bhunadih, confirming that it is a regional indicator, representing a ceramic tradition that existed well before the introduction of Northern Black Polished Ware and subsequent 'imperial wares'. The culture-historic chronological approach used by Singh in creating the pottery sequence for this area does not take into account the overlap or continuities of ceramic traditions. According to Singh's chronology CIW should have been replaced by Black and Red Ware in the Chalcolithic period, but it is put forward here that at both Lumbini and Gotihawa the dominant ware in the late Chalcolithic (approx. twelfth century BCE) is still CIW. Further analysis of the implications of the Cord-Imprinted Ware from Lumbini will be discussed in the following chapter. At Lumbini, Cord-Imprinted Ware can be used as a pre-Mauryan indicator, representing the more localised cultural traditions that were present before the Mauryan period and the assumed widespread adoption of 'imperial wares' such as Northern Black Polished Ware.

Black and Red Ware (BRW) is found in small numbers at the Lumbini Village Mound. The majority of the sherds are of medium fabric, worn, and undiagnostic. The unique black-and-red colouring (black on the inside and red on the outside) was obtained through the technique of inverted firing at high temperatures (Verardi 2007: 245). The blackened inside of the vessel is due to the reducing conditions present in the fuel and the outer surface is red due to oxidising conditions (Mitra 1972: 20). BRW is an ancient pottery production which can be found throughout the Subcontinent, but its roots are commonly identified in the late Harappan period (ibid.). As described above, BRW has been used as a chronological indicator of the Chalcolithic period in the Ganga Plain after Singh's excavations at Narhan in the 1980s. However, there is a distinct lack of BRW from Lumbini, the

implications of which will be discussed in Chapter Five. There have been no diagnostic sherds found at Lumbini, and nothing can therefore be said of the forms.

One small undiagnostic sherd of Painted Grey Ware (PGW) (SF 2060) was discovered in Trench A of the Lumbini Village Mound. PGW belongs to a well-defined industry in South Asia and it is often used as a cultural label. It is a high quality luxury ceramic which is formed of well-levigated clay and a fine thin fabric (Lal 1955: 32). Both the section and the surface are grey, but matt black lines and dots are painted on the body before firing (Figure 4.28). PGW has been found throughout the Upper Ganga Valley and beyond and has been dated to c. 1200-600 BCE (Jain 1972: 95; Ghosh 1989: 108; Lal 1999).

Black Slipped Ware (BSW) was found in contexts at the Village Mound, Heli-pad, Nursery Well, Sacred Garden and the Maya Devi Temple. BSW is a wheel-made, well-fired, well-levigated fine ware usually with a grey section and core. The black slip is lustrous and thick and often flakes off leaving a worn grey ceramic which can be mistaken for a Grey Ware (Verardi 2007: 245). In fact, Mitra identifies some of the BSW from Tilaurakot as Grey Ware stating that “most of the vessels were treated with a slip both internally and externally, the colour being grey with shades varying from medium to dark grey or black” (1972: 23). It has also been observed in a local museum in the Terai that BSW has been mistaken for Northern Black Polished Ware, but BSW has a thicker section with a thinner, less lustrous slip. BSW is also quite ubiquitous in the Ganga Plain, often appearing with Cord-Imprinted Ware and Black and Red Ware at sites such as Narhan. There is very little in the way of research about Black Slipped Ware, but it is thought to be produced locally and may serve as the precursor of many of the ‘imperial’ fine wares such as Northern Black Polished Ware. BSW can be found throughout the sequence at Lumbini, but there are higher concentrations of it in the lower levels of the Village Mound and the Heli-pad. The *thali* is the dominant form for BSW but there are examples of Inverted *thali* form, closed-mouth vessels, an open bowl (SF 11084), *mataka* (SF 2120), a globular jar (SF 2718) and small vases (SF 3245).

Red Ware (RW) is by far the most ubiquitous ceramic found at the site and indeed at most sites in the area. The majority of sherds demonstrate a medium fabric, but it may range from fine to coarse ware. Surface treatments can vary with unslipped and slipped examples, and the slip can range from burgundy to russet-red and brown. Many of the sherds are decorated with stamps, incising, moulded designs, or paint. Common stamped designs include spirals which can be attributed to the Gupta period and flower designs which are often attributed to the Kushan period and are quite similar to Kushan era ceramics from Tilaurakot. Other common decoration motifs include a triangular notch design and a crescent-shaped fingernail design around the shoulder of vessels. One

particular variation that is distinct within the Red Ware from Lumbini is that of the Mica-Slipped Ware. Red Ware represents a locally made ceramic which is difficult to use as a chronological indicator as it is found throughout the occupation of the site and continues to be made in the area today. Its widespread use and mass production may also have made it a plentiful source of material for secondary reuse as building or paving matter, especially in the focal points of the Maya Devi Temple, and terracotta tiles have been found with sherds of pottery used as temper. The forms of Red Ware from Lumbini are very diverse and show a range of uses including cooking vessels (*handis* and basins), tableware (*thalis*, open bowls, closed mouth vessels, and cups), storage vessels (upright jars and globular jars), and vessels used for rituals and offerings (small pear-shaped jars/vases, small globe-shaped jars/vases, and oil lamps).

4.5.2 Ceramic Forms

Within the wares described in Section 4.5.1 a number of different forms were identified in the ceramic assemblages of the 2011-2013 excavations at Lumbini. These forms are described below, and will be used in Chapter Five in order to assess variations in ware and form distributions across the areas of the site, and to analyse the changes in forms and distribution throughout the sequence. The spatial analysis will help determine whether Lumbini is unusual in its material culture compared to contemporary sites of various types, whilst the temporal comparison of wares and forms with the ‘typical’ Mauryan or late NBPW assemblages described by Roy and reviewed above will be used to assess the usefulness and reliability of ceramics as Mauryan or Buddhist ‘markers’, and indeed as period markers in general. All of the following forms at Lumbini are typologically similar to those found at the nearby sites of Gotihawa, Tilaurakot, and Piprahawa/Ganwaria.

Storage Jars

Storage jars are one of the most ubiquitous categories of ceramics found at the site, and have been subdivided into different forms based on their shape, but there is no presumption that the differences in function are based on shape despite the terminology used below. These storage jars include the Upright *Ghara/Mataka* form, the Globular Jar, Form Y, Small Upright Jar (*Lota*), and Small Globular Jar. It may be that they are all used for storage, but it is not possible to identify what they stored.

The Upright *Ghara/Mataka* form is characterised by vessels with collared rims and short straight necks which taper into a globular body (Figure 4.22). Rims in this upright form can vary from a simple everted overturned rim to those with internal and external bevelling and rim dimensions can range between 120-260 millimetres. Many of these vessels are slipped and are corrugated externally. Verardi identifies these vessels as *ghara* (water vessels) and *mataka* (pitcher) forms and the same terminology has been adopted for this thesis. Parallels for the form and rim shape can be seen as follows: Mitra's CXXX, CXLIV, CXLV (Mitra 1972: 62), CVIL, CLVI, CLVIII and CLXII (ibid.: 74); Verardi's ppr. 726, 983, 281, 206, 1058, 1003 (Verardi 2007: 290), 1084, 1085, 1089 (ibid.: 299), 1062, 1060, and 1059 (ibid.: 292).

Globular Jars are distinguished from the previous form by the absence of a neck. The rim shapes and dimensions vary between 120-260 millimetres, but all examples show a profile gradually expanding from the rim (Figure 4.23). Parallels can be seen in Mitra's CXXIX, and CXXVIII (Mitra 1972: 62) as well as Verardi's ppr.281 (Verardi 2007: 296).

Form Y is a large, thick-walled globular-shaped storage vessel with a rim diameter of 190 millimetres and although the vessels appear to be slipped as with other RW vessels, the fabric is much coarser and heavier (Figure 4.24). There are no parallels in size or form in published material from Tilaurakot, Gotihawa, or Piprahawa/Ganwaria. Only two examples of this form were found and they are both (SF 2682) from (1033) of the Village Mound.

The Small Upright Jar (*Lota*) is a smaller variant of the upright *ghara* and *mataka* forms. The rim is notably different however, as it is very upright with no lip and often has corrugation on the neck. Rim dimensions are quite large ranging from 150-190 millimetres. Parallels can be seen in Mitra's LXXXiv and LXXXv (Mitra 1972: 50).

Small Globular Jars are a smaller variant of the larger globular jars with rim dimensions ranging between 170-190 millimetres, but the fabric of these vessels is slightly finer than the larger forms and there are not many examples of this form. A parallel for this form with a can be seen in Verardi's ppr. 1007 (Verardi 2007: 287).

Small Vases

Small Vases (*Katiya*) may be distinguished from a small jar based on its smaller size and rim dimension ranging between 40-90 millimetres (Figure 4.25). It may be that these vases are smaller

variations of the larger upright *ghara* and *mataka* forms. Another rim variation for this form is characterised by an outwardly bulging inverted rim and a carination at the base of the neck. No parallels for this rim type can be found in Mitra and Verardi. Parallels for vessels can be seen in Mitra's XCVIII and XCI (Mitra 1972: 54) and Verardi's ppr. 172 and 282 (Verardi 2007: 295). Verardi identifies these forms as *Kaityas* which he describes as small vases no more than 10 centimetres in height and currently used during *puja* or for other ritual purposes (ibid.: 244). They could also be used to store unguents or cosmetics, but the ritual aspect of these vessels is notable as they were found in these excavations at the bottom of pits (SF 1552 and 1555), as discussed later in this chapter.

Tableware

Open V-shaped Bowls have a simple rim with dimensions ranging between 280-300 millimetres and taper to a button base with marks of the cutting thread. Parallels for these vessels can be seen in Mitra's XXVIII (Mitra 1972: 36-37) and XII (pg 28) and Verardi's pprp. 177, 178 and 197 (Verardi 2007: 294).

Shallow Open Bowl have a few different variations in the shape of the rim, some with simple everted rims or elongated everted rims, and others with bevelling on the interior just below the rim. Diameters are generally ranging between 240-270 millimetres, although some smaller examples do exist. There are only a few examples of the bases of these bowls, but they do appear to be convex or flat. Many of these vessels show evidence of internal slip and less frequently external slip and parallels can be made with Mitra's LVI (Mitra 1972: 44) LXV and LXI (1972: 46) and all open forms on page 50 of the same volume and Verardi's ppr. 1184 (Verardi 2007: 298) and gth. 1049 (ibid.: 300). Both Verardi and Mitra describe some of these forms as lids, but given the size of some of these vessels they appear to be convex bottom bowls.

Thali forms are represented by a few examples in Red Ware, but most other examples are BSW or P-NBPW. This form is regarded as tableware with the diameter of vessels ranging between 200-300 millimetres. The walls are thin and convex with a flat or slightly rounded base. Numerous examples can be found in both Mitra and Verardi as this one of the most common forms found during the Early Historic period in South Asia. However, Verardi classifies all dishes as *thalis* including all open bowl forms. In addition to separating the open bowl forms from Lumbini, the *thalis* with an inverted rim have been separated, as whilst they may have served a similar function, they are a different shape.

The Inverted *Thali* form has been loosely defined based on possibly comparisons with Mitra and Verardi, but there are too few large sherds to definitively discern the form. These sherds tend to be thin-walled and shallow inverted rim vessels of a slightly finer fabric with a rim diameter measuring between 240-280 millimetres. Possible parallels are seen in Mitra's XIV (Mitra 1972: 32) and Verardi's ppr 1098 (Verardi 2007: 291).

Cooking Vessels

Closed Mouth Vessels/*Handi* are globular vessels with a simple inverted rim, but shows some variation in wall thickness and rim diameter (180-290 millimetres). Some of the thicker examples have an external groove running around the vessel just under the rim, whilst other examples have ledge and lug handles attached (Figure 4.26). Verardi and Mitra refer to this form as cooking/storage vessels and parallels can be seen in Mitra's CXXIII (Mitra 1972: 60) and Verardi's ppr. 584 (Verardi 2007: 287), ppr. 503, 530, 2023 and 992 (ibid.: 289).

Basin/*Handi* are heavy shallow open basins of a slightly coarser fabric with mica inclusions in the clay and no discernible slip. The rim varies from simple upright rims to having an everted lip with dimensions ranging from 280-320 millimetres. These cooking vessels often have a ledge handle on either side of the vessel and a blackened base. A parallel can be seen in Mitra's LII (Mitra 1972: 44).

Oil Lamps

Finally, Oil Lamps are distinguished from other bowl forms on the basis of their size, fabric and wall thickness. They range from 70-160 millimetres in diameter with the majority of them being between 70-90 millimetres and the vessel walls are 1 millimetre thick. The fabric is a finer red ware with a soapy texture and no slip. They are an open V-shaped form tapering down to a button base with the marks of the cutting thread similar to Open V-shaped Bowls and a simple rim (Figure 4.27). Parallels can be seen in Mitra's XXVIII (Mitra 1972: 36) and Verardi's pprp. 175 and 176 (Verardi 2007: 293). Verardi has described them as drinking vessels and Mitra does not offer any interpretation as to the function of the vessels, but several examples from Lumbini have been found with evidence of burning within them (SFs 3294 and 2790), identifying them as possible oil lamps.

4.5.3 Other Artefacts

Very few artefacts other than the ceramics described above were found at Lumbini during these excavations. It is not certain if this was due to the excavation methodology or the nature of the site, but possible explanations will be explored in Chapter Five. Of the few artefacts from Lumbini, even fewer have come from sealed contexts, and as the remaining artefacts are not relevant to this thesis, only those from sealed and datable contexts will be discussed.

All of the terracotta artefacts from Lumbini are handmade and do not fall into any recognisable typologies, and as such they are difficult to date. These artefacts include ghata-shaped beads, fragments of wheels, figurine fragments (arms and legs), D-shaped and rounded bangles, balls, cones, discs, and a possible fragment of votive tank (SF 1214). Of the few terracotta artefacts recovered from Lumbini only two can be confidently dated. The animal figurine fragment (SF 1310) from palaeosurface 1329 of the Heli-pad dates to pre-Mauryan Phase I, and a barrel-shaped bead from Trench 1 of the Sacred Garden to the Sunga period in paleosurface (3017).

Only a few glass bangle fragments and worked stone artefacts were recovered from Lumbini, all of which are from either subsoil or mixed contexts. Most of the metal finds from Lumbini were found at, on, or near the surface and are relatively recent or modern, but two iron objects and one copper object have been recovered from sealed and datable contexts. Two iron objects (SF 1559 and 1211) were found in Trench P of the Village Mound in structural platforms (1507) and (1511), and dated to Mauryan and pre-Mauryan Phase I of the phasing described below respectively. In addition a copper object (SF 6042) from Trench 1 of the Sacred Garden was recovered from paleosurface (3017), which dates to the Sunga period.

One of the most significant categories of finds from Lumbini is that of the bricks, terracotta tiles, mortar, and plaster found within the Village Mound, Sacred Garden, and the Maya Devi Temple. These finds demonstrate considerable local variation, indicative of regional knowledge and investment on the part of the manufacturers. As will be shown in Chapter Five, this is particularly significant for the discussion of cultural continuity through the so-called 'Mauryan Horizon'.

4.6 The Archaeological Sequence (2011 - 2013)

Having summarised the ceramic wares and forms, and other materials encountered at Lumbini, the following section presents the phased sequence of dated archaeological contexts, materials and

ceramics. It is important to note that the hypothesised sequence from previous investigations of Lumbini reviewed in Section 4.4 relies on the relative dating of contexts based on assumed Mauryan 'markers' in the material culture, and was therefore labelled dynastically by the relevant investigators according to these perceived links. It has already been established in Chapters Two and Three that the methodological ties between archaeology and textual scholarship have created close associations between dynastic labels and interpretations reliant upon historical narratives. Since a principle objective of this thesis is to test the reliability of these periodised 'markers', the sequence of the 2011-2013 excavations below has been labelled according to specific date ranges established through scientific dating of contexts, rather than by the problematic dynastic terms with their associated connotations. The result of this labelling is that the analysis of contexts, ceramics, architecture, other archaeological materials, and site wide phases included in this thesis are not bound by the restrictions imposed by a reliance on the textual sources. The periods used in the following sequence are listed here, and will be used throughout the following chapters in relation to the 2011-2013 evidence from Lumbini.

- Period I (thirteenth-twelfth century BCE)
- Period II (twelfth-eighth century BCE)
- Period III (eighth-third century BCE)
- Period IV (third-second century BCE)
- Period V (second-first century BCE)
- Period VI (first century BCE-third century CE)

Some of these periods are of course analogous to dynastic periods, but the key issue for the purposes of this thesis is that the sequence is based on the evidence of radiocarbon and OSL dating of stratigraphic contexts, and are not bound to a relative sequence of potentially flawed material/chronological indicators. For example, Period IV is contemporary with the chronological span of the Mauryan Empire, but since Mauryan Imperial occupation of the site has not yet been demonstrated based on the archaeological evidence, the use of the term Period IV avoids the loaded connotation.

As the focus of this thesis is on the 'Mauryan Horizon', and Objective Five of the thesis is to test for archaeological evidence of continuity through this 'horizon', these chapters will address the evidence of Period I – VI, analogous to three non-dynastic pre-Mauryan phases, Mauryan period, Sunga period, and Kushan period phases in order to examine the trends of material culture across the 'Mauryan Horizon' in Chapter Five. As a comparison to the phasing of the previous investigations

of Lumbini which were dated at the earliest to the sixth century BCE, as described in Section 4.4, it is worth noting that this new sequence from the 2011-2013 excavations begins in the late second millennium with Period I, generally referred to in this region of the Subcontinent as the Late Chalcolithic. For the purposes of the thesis the later phases of the site after the third century CE are irrelevant, and will not be summarised here, but are available in the published excavation report. A brief description of the hypothesised use of the site in each period is provided based on excavated contexts and material assemblages, as well as the published results of the geophysical and paleo-landscape surveys of the project. This data is discussed with reference to specific areas and individual trenches as necessary, which will become increasingly relevant in the comparison of assemblages from different regions of the site, and the presence, absence, and reliability of the Mauryan period and Buddhist 'markers' in Chapter Five.

4.6.1 Period I (Late Chalcolithic)

The 2011-2013 project has resulted in the first evidence of Late Chalcolithic period occupation (thirteenth-twelfth century BCE) at Lumbini, referred to here as Period I. A similar occupation date was reported by Verardi at the nearby site of Gotihawa in the 1990s, as well as at numerous sites in the Middle Ganga Plain, including the ceramic type site of Narhan in Uttar Pradesh.

The only evidence of Period I occupation found at Lumbini came from Trench P at the Village Mound, and consists of three shallow bell-shaped pits [1533], [1535] and [1537]. These pits were filled with washed material (1534), (1536), and (1538) and two lenses of fine, well-sorted sand indicative of significant flood events across the site. Further evidence of flooding can be found in the 0.5 metre deposit of thick, compact, and redeposited natural clay that sealed these pits, likely representing a deliberate raising of the mound in order to avoid further flooding. This earliest phase of occupation in Trench P is dated at 1280 ± 150 BCE, a date obtained by the statistical combination of OSL sample dates of 1260 ± 310 BCE and 1310 ± 240 BCE, taken from the base and top of these pits respectively (Figure 4.29).

The ceramic assemblage from this period was comparable to that of Gotihawa with 36% Cord-Impressed Ware, 30% Red Ware, 16% Black-Slipped Ware, 6% Proto-Northern Black Polished Ware, and 2% Coarse Ware. However, only two diagnostic sherds were recovered from this phase: SF 4187, a P-NBPW *thali* form, and SF 4196, a RW closed mouth vessel with traces of black slip (Figure 4.30).

4.6.2 Period II

Period II and III together represent a very broad generalisation of the period dating from the twelfth century BCE through to the third century BCE. Prior to these excavations the occupation of Lumbini during this chronological span was only poorly understood. At other sites in the Middle Ganga Plain, including the nearby site of Tilaurakot and the ceramic type sites of Narhan and Hastinapura, this period is represented by the presence of Painted Grey Ware and the introduction of iron. However, at Lumbini there is very little evidence of PGW and iron artefacts. For the purposes of this thesis the Period II dates from the twelfth century BCE to the eighth century BCE, and Period III dates from the eighth century BCE to the fourth century BCE.

Evidence of Period II occupation (twelfth–eighth century BCE) was found across Lumbini at the Maya Devi Temple, the Sacred Garden, the Village Mound, and the Heli-pad. In Trench A of the Village Mound, excavations revealed a subcircular pit [1009] measuring 1.04 x 1.4 metres. The fill of the pit was rich in ceramics, including the only sherd of PGW found at Lumbini so far, charcoal, and an articulated animal hoof. OSL samples from the pit indicate a fill dating to around the seventh century BCE (Coningham and Acharya 2012).

In Trench P of the Village Mound the phase was represented by a 0.2 metre thick rectangular structural foundation (1511) comprised of a highly compacted silty-clay with fine brickbat inclusions. This structural platform sat above the paleosurface of context (1518) which sealed (1523), the deliberate rebuilding of the mound after flood events. The platform was cut by a posthole [1513] and a stokehole [1515] on its eastern flank, forming part of an eastern wall probably constructed of wattle-and daub (Figure 4.31). This phase was rich in crisp sherds of CIW and P-NBPW as well as RW. The OSL sample taken from this structural platform dates to 930BCE \pm 160, placing it firmly within Period II.

In Trench 2 of the Heli-pad, Period II was represented by a series of intercut pits and two palaeosurfaces. Two pits, [1352] and [1353] were cut into the re-deposited natural of (1349) near the base of the trench. Overlying (1349) was another layer of re-deposited natural, (1348), which had been cut by large pit [1346]. This pit covered the length of the trench, disappearing into the east and west facing section walls. Its primary fill was charcoal and ceramic rich silt (1338), and its secondary fill was soft silt (1333). Cut into the surface of (1333) was shallow pit [1332], measuring only 0.10 metres in depth. It was filled with soft silty clay (1331). Sealing both this and (1333) was

compact palaeosurface (1329) containing brickbats, CIW and P-NBP (Figure 4.32). At the time of writing no absolute dates for these features have been obtained, but the ceramics from these levels were in exceptional condition and the assemblage is directly comparable to Verardi's Proto-Northern Black Polished Ware period dating to the ninth-fifth century BCE at Gotihawa. Radiocarbon samples from this phase of activity have been taken to test this hypothesis (Coningham and Acharya 2013).

The excavations within the Maya Devi Temple have also revealed Period II occupation, with cultural deposit (16) from Trench C13 dating to 812-750 BCE and consisting of small brickbat flecks, charcoal, as well as sherds of Cord-Imprinted Ware, Black Slipped ware and Proto-Northern Black Polished Ware (Coningham and Acharya 2012). Additional evidence from occupation level (114) from Trench ENE dating to 1080 ± 245 BCE and (509) from Trench C5 dating to 990 ± 280 BCE, confirms this Period II within the Temple (Coningham and Acharya 2011). As mentioned above, most of the early structural remains from the Temple were found in Trench C5b, with the first phase represented by a series of postholes and stakeholes. Cut into a layer of re-deposited natural representing the deliberate raising of the mound (544) were a series of five postholes [550], [545], [554], [552], and [556] and a stakehole [558], all running on an east-west alignment (Figure 4.33). Radiocarbon samples were taken from the fill of two of these postholes and dated to 799-546 BCE and 801-548 BCE (Coningham and Acharya 2012).

The best examples of the ceramic assemblage for Period II are from Trench P at the Village Mound and Trench 2 of the Heli-pad. At Trench P the assemblage consisted of a total of 1248 sherds with 67.4% RW, 14.9% RW/mica, 7.65% BSW, 5.1% P-NBPW, and 4.9% CIW (Figure 4.34). Forms recovered from this period include open bowls, closed mouth vessels, *thalis*, inverted *thalis*, and small vases. The assemblage from Trench 2 from the Heli-pad differs significantly with a total of 7006 sherds and an assemblage of 44.5% RW, 4% BSW, 21.6% P-NBPW, and 29.9% CIW (Figure 4.35). Forms recovered from this phase include, matakas, basins, closed mouth vessels, globular jars, open bowls, *thalis*, and inverted *thalis*. The difference between the assemblages between these two trenches may be due to the preservation and the function of the areas. The assemblage from the Heli-pad was better preserved, with larger, almost complete vessels particularly of P-NBPW, which may indicate a certain prestige use of the area. The assemblage from the Heli-pad has been particularly useful in discerning the form of CIW as there are several of large rim sherds with the Cord-Imprinted marks on the shoulder. There is a notable increase in P-NBPW and RW and a decrease in the production of CIW and BSW from the Period I Late Chalcolithic, which lends credence to the hypothesis that P-NBPW is an improvement upon BSW.

A fragment of a terracotta animal figurine (horse?) (SF 1310) was found in paleosurface (1329) of the Heli-pad. The fragment is broken at the torso and back legs, is missing the tail, and is decorated with incised lines running across the body. The piece measures 58 x 43 x 18 millimetres, and weighs 46.42 grams, and was one of only two terracotta artefacts which could be securely dated by context. An unidentified iron object (SF 1211) was recovered from context (1511) of the structural platform in Trench P of the Village Mound. The object measures 49 x 19 x 15 millimetres and weighs 22.2 grams.

4.6.3 Period III

Period III occupation (eighth -third century BCE) was found across the site, and has been confirmed with absolute dating of samples from the Maya Devi Temple and the Sacred Garden. The phase was represented by a pit feature [1009] in Trench A of the Village Mound, and a Paleosurface (1351) rich in Proto-Northern Black Polished Ware in Trench 2 of the Heli-pad. Structurally, this phase was represented by negative features such as postholes, stakeholes, and wall slots. In Trench 1 of the Sacred Garden the phase was represented by two stake holes [3035] and [3037], cut into the natural and sealed by a Paleosurface. Trench 2 yielded more compelling evidence with a wall slot [4044] running NNE-SSW, cut in to the natural and lying directly below the surface wall of the monastery structure. The fill of the wall slot [4044] was also cut by three shallow stakeholes, evidence of a wooden wall postdating the original wall slot. Sealing this activity was a further structural phase on the same alignment. Floor level (4043) was sealed by Paleosurface (4034), dated to 670-481 BCE, which was cut by a shallow wall slot [4036], dated by its fill to 669-413 BCE. The alignment of wall slot [4036] matched that of both slot [4044] below, and the extant brick walls on the surface above.

The continuity in the delineation of space seen in walls slots [4036] and [4044] and extant brick walls was echoed in Trench C5b of the Maya Devi Temple. In this area, Period III was represented by a double line of upright bricks <525> forming a kerb running on the same alignment as the postholes from the previous structural phase (Figure 4.36). The bricks, identified as SF 272 and SF 273, were large and heavy, weighing around 20 kilograms each, with finger marked grooves running across the surface. This double kerb was surrounded by a rough brick paving [539] set within a rammed earth floor (540). The replacement of the wooden fence or railing of the previous phase with a brick kerb, and the replacement of a rammed earth floor with a brick pavement seems to indicate increased usage of this 'shrine', and represents one of the earliest examples of a delineation of sacred space in this locality. Radiocarbon and OSL samples taken from cultural deposit (15) of Trench C13 in the

Temple returned dates of 596-408 BCE and 510±150 BCE respectively, confirming the Period III dating of phases in the Temple sequence.

The best ceramic assemblages from Period III were recovered from Trench 2 at the Heli-pad, Trench 2 of the Sacred Garden, and Trench C5b of the Maya Devi Temple. However it was from Trench A of the Village Mound that the only sherd of Painted Grey Ware (SF 2060) was recovered from [1009]. 501 sherds of this phase were recovered from Trench 2 of the Heli-pad, with an assemblage of 75.1% RW, 4.9% BSW, 10.3% P-NBPW, and 9.7% CIW (Figure 4.37). Forms from this phase include *matakas*, small globular jars, closed mouth vessels, and *thalis*. The assemblage from Trench 2 in the Sacred Garden is directly comparable, but with a total of only 18 undiagnostic sherds: 78% RW, 9.7% BSW, 7.6% P-NBPW, and 4.6% CIW (Figure 4.38). In Trench C5b, 95 sherds were recovered again with a comparable assemblage of 74.8% RW, 5.9% BSW, 10% P-NBPW, and 9.3% CIW (Figure 4.39) but with forms limited to *thalis*.

The large bricks (SF numbers 279, 280, 250, 272, 280, 285, and 294) that made up the kerb <525>, mentioned above as the Period III replacement of Period II postholes in the Temple, are very distinct in their size, shape, and texture. Due to the great abundance of straw and rice husk mixed with the clay, they appeared to be very porous and fragile and were likely fired at a low temperature (Meucci 2013: 22). The presence of straw mixed with the clay regulates the shrinkage during the drying and firing process. The distinct finger marks across the surface of the bricks are unique to this phase; however, similar marks are found on terracotta tiles dating to the Mauryan period (ibid.). In situ XRF analysis carried out by the conservation team confirmed that the bricks were produced locally which required a certain amount of knowledge and investment on the part of the manufacturers, the implications of which will be discussed in Chapter Five.

All the brick samples listed demonstrated finger marks, and included SF250, measuring 460 x 360 x 75 millimetres and weighing 10.3 kilograms; SF272, measuring 490 x 380 x 68 millimetres and weighing 19.8 kilograms; SF273 an almost complete brick measuring 470 x 370 x 75 millimetres and weighing <20 kilograms; SF279 measuring 490 x 380 x 75 millimetres and weighing <20 kilograms; SF280, a half brick with prominent finger marks measuring 490 x 200 x 72 millimetres and weighing 19 kilograms; and SF285, a half brick in two pieces measuring 520 x 220 x 70 millimetres and weighing 8.4 kilograms.

4.6.4 Period IV (Mauryan period)

As previously discussed, the Mauryan period has traditionally been identified by monumental brick and stone architecture, and prior to this project the brick structure of the Maya Devi Temple was thought to represent the earliest phase of construction in this part of the site. As outlined above, it has now been established that this location had already been marked and delineated by a series of timber and brick structures, and the implications of this revelation will be discussed in Chapter Five.

The foundations of the Period IV Temple have already been discussed in covering the excavations of the Japanese Buddhist Federation, but the 2011-2013 excavations within Trenches C5, C6, C9, 12, and C13 have provided further detail on the structure, shape and finishing of the Temple. The discovery of terracotta tile and wall plaster within the upper levels of the Period IV structure found in Trench C9 have provided a major insight into the building materials of the Mauryan period. The earliest phase of Period IV construction appears to have been wall <1202>, encountered in Trench C12. This wall, as well as the earlier Period III pavement of <1201>, was then cut by postholes [1203] and [1204]. The fill of [1204], context (1205), was a soft, dark-yellowish silty-clay and included packing material such as brickbats. While removing (1205) it was possible to see two courses of brick in the Period III pavement <1201>, and it was also apparent that the brick post packing material in (1205) was the same thickness as the bricks of <1201>. This indicates reuse of the Period III pavement material in the construction of the second phase of Period IV activity, represented by postholes [1203] and [1204]. These facts, taken with the discovery of similar postholes to the south in Trench C7, indicate that the Period IV Temple was built directly on top of the earlier Period III brick platform, and is likely to have had a roof supported by substantial timber posts. This hypothesis is supported by the discovery of terracotta tiles found in rubble layers associated with the levelling of the Period IV Temple, in Trenches C13, C9, and C6, and fragments of lime plaster, presumably from the walls of this structure, found in Trenches C6 and C9 (Coningham and Acharya 2013). Terracotta tiles were noticeably absent from Trench C5, possibly indicating that the centre of the structure was left open. Additional evidence from the thin-section micromorphology supports this hypothesis with the presence of clay accumulation (textural pedofeatures) in a number of root channels and on coarse (silt-size) mineral grains, together with the accumulation of organic coatings in pore spaces (Coningham et al. 2013: 1113.). There was also evidence of substantial root features, where iron deposition preserved the organic fragments, and micron-scale root channels infilled with recrystallised mineral material, as well as increased frequencies of fine organic materials but with no increase in phytoliths (ibid.). This last evidence suggests that additional organic material was culturally deposited within the centre, but not cultivated in its vicinity (ibid.).

Elsewhere in the site, Period IV occupation was more ephemeral, but occupation of the Sacred Garden, Village Mound and Heli-pad appears to have continued directly from the Period III phases. Timber postholes, wall slots, and terracotta tiles from this phase were found at the monastery, in cultural deposits and structural platform (1507) at the Village Mound, dated to 460±130 BCE, and a rammed brick surface at the Heli-pad (Coningham and Acharya 2013).

The ceramic assemblage from the Period IV phase of Lumbini follows the Period III trend of an increase of Red Ware and decrease of BSW and CIW, and demonstrates the first example of Northern Black Polished Ware at the site. However, the numbers of NBPW are so small that this does not seem to have made much of an impact at Lumbini, and the implications of this will be discussed in Chapter Five. The ceramic assemblage from the Maya Devi Temple comes from Trenches C5, C6, C13, and C9, with 1135 sherds recovered from this phase and a breakdown of 84.5% RW, 5.0% BSW, 3.4% P-NBPW, 6.4% CIW, and 1.1% NBPW (Figure 4.40). The forms from this period include *matakas*, closed mouth vessels, small globular jars and *thalis*. In Trench P of the Village Mound, this phase is represented with an assemblage very similar to that of the Temple with 1902 sherds recovered and 94.3% RW, 3.6% BSW, 1.2% P-NBPW, 0.8% CIW, and 0.1% NBPW (Figure 4.41) and form including oil lamps, closed mouth vessels, open bowls, large and small globular jars, small vases and *thalis*.

A single iron object (SF 1559) was found in two pieces was recovered from context (1507) of the structural platform, in Trench P of the Village Mound, weighing 37.07 grams. The bricks samples taken from the Period IV Temple (SFs 401, 402, 403, 404, 435, 616, 617, 651, 652, 653, and 658) had an average size of 226 x 185 x 128 millimetres with an average weight of 7.2 kilograms. The bricks are nearly half the size of the Period III bricks that made up the kerb. As with the previous phase of bricks these contained straw as temper but it is hypothesised that the firing temperature was higher, varying between about 520°C and 550°C based on the residual composition and the kiln technology (ibid.). There is a presence of a yellow patina on a part of the analysed samples and thin section analysis has provided some interesting information about the appearance of the Period IV bricks and Temple. It appears evident that in the majority of the samples, the lime mortar covers the silt yellow patina indicating that in this period the external surfaces of the masonry were finished with a white lime plaster which was likely painted. This would support the hypothesis that the layer of yellow patina was intentionally applied to the wall as a primer to prepare the surface for painting since the layer of clay reduces the absorption of the binder and the colour retains its brightness and tone (ibid.: 27). The brick samples from this period included SF401 from C9 of the Maya Devi Temple, measuring 270 x 190 x 125 millimetres and weighing 6.1 kilograms; SF402 from C9 of the Maya Devi

Temple, measuring 195 x 190 x 125 millimetres and weighing 6.2 kilograms; SF403 from C9 of the Maya Devi Temple measuring 250 x 190 x 140 millimetres and weighing 9.9 kilograms; and SF404 from C9 of the Maya Devi Temple, measuring 190 x 170 x 125 millimetres and weighing 6.5 kilograms.

As described above, terracotta tiles were found throughout the levelling phases of the Period IV Maya Devi Temple. Similar to the bricks, the interlocking tiles are tempered with rice husks and large inclusions such as stones and small sherds of ceramics and they are also marked with finger grooves across the surface (Figure 4.41). The highest concentrations of tiles were found in Trenches C13 with 71 fragments, C6 with 21 fragments and C9 with 62 fragments. Tiles were also found outside the Temple in Trench 3 of the Sacred Garden where over 20 fragments were recovered throughout the sequence. The manufacture, design, and location of the tiles provide a basis for understanding the appearance of the Period IV Temple as well as the knowledge and investment required in its building. The following represent a small sample of the terracotta tiles from Lumbini, but the complete list can be found in the Appendices at the end of this thesis. The samples include SF300, a fragment measuring 82 x 63 x 21 millimetres and weighing 101.2 grams; SF278, a fragment measuring 101 x 62 x 22 millimetres and weighing 146.13 grams; SF271, measuring 105 x 89 x 23 millimetres and weighing 290 grams; SF319, a fragment with finger marks and interlocking edge measuring 108 x 112 x 24 millimetres and weighing 200 grams; SF323, a fragment with finger marks measuring 75 x 58 x 20 millimetres and weighing 56.7 grams; and SF462, a fragment with finger marks measuring 85 x 81 x 23 millimetres and weighing 143.91 grams.

The same levels in the Temple that contained the terracotta tile fragments contained fragments of plaster and mortar, which again provides a valuable clue as to the design and aesthetic of the Asokan Temple. As described above, the conservation team identified a white lime layer mortar on the Asokan level brick surfaces. This lime plaster was layered on a thin yellow patina made of silt which adheres directly to the surface of the brick (Figure 4.42). The composition of this layer mortar differs greatly from that of the mud mortar used in between the bricks, therefore it is likely that the walls were originally plastered and the traces of black and red pigments on the external surface of the plaster indicate that it was probably painted as well (Meucci 2013: 28). The plaster was found in trenches C6 with over 100 pieces recovered, C9, C5b and one piece from trench 3 in the Sacred Garden. The samples of lime plaster recovered included SF526, a large piece with paint pigment measuring 145 x 100 x 18 millimetres and weighing 98.2 grams; SF535, a piece of plaster with well-preserved finish and paint pigment measuring 53 x 44 x 19 millimetres and weighing 53.3 grams; and

SF541, a piece of plaster with well-preserved finish measuring 33 x 21 x 14 millimetres and weighing 12.54 grams.

4.6.5 Period V (Sunga period)

Structural evidence of Period V at Lumbini, analogous to the Sunga period, has been difficult to identify as most of the common indicators of this period are artefactual, but artefacts of this period were scarce at Lumbini. Previous excavations at the site have identified Sunga Period expansions and additions to Mauryan period *stupas*, the construction of a new *vihara*, and a new phase of Temple construction. The 2012 excavations at Trench 1 in the Sacred Garden identified a rammed brickbat floor and a stakehole dating to 1 BCE-CE 127 and 57-217 CE respectively. These features postdate and expand upon a series of pre-existing structures in the monastery, demonstrating a continuity of construction and delineation of space in Period V, rather than an entirely new construction.

Period V occupation can also be found within the Temple in Trenches C13 and ENE, with occupation levels dating to 170-19 BCE and 35±195 BCE respectively. Occupation continued at both the Village Mound and the Heli-pad through this period, but there are neither absolute dates for this phase, or any artefacts typically identifiable as Sunga to support this. This absence will be discussed further in Chapter Five.

The ceramic assemblage for this period is taken from those levels of Trench 1 of the Sacred Garden which demonstrate Period V extensions and improvements on the pre-existing monastic structure. A total of 1490 sherds were recovered from this phase in the monastery with 93.2% RW, 1.3% Coarse Ware, 2.3% BSW, 1.8% P-NBPW, 1.6% CIW, and 0.1% NBPW (Figure 4.43) with forms including *matakas*, small upright jars, closed mouth vessels, open bowls, inverted *thalis*, *thalis*, small vases, and oil lamps.

Other artefacts found in contexts relevant to this period include a terracotta bead and a copper object. The find of a terracotta barrel-shaped bead (SF 6071) represents the second of only two securely dated terracotta artefacts from these excavations. The bead measures 18 x 5 x 2.5 millimetres, and weighs 0.96 grams. A small, rectangular, and flat copper object (SF 6042) was found in paleosurface (3017) of Trench 1 within the Sacred Garden, and the object measures 13 x 4 x 1 millimetres and weighs 0.28 grams.

4.6.6 Period VI (Kushan period)

The brick-built architecture of the Kushan period is often readily identifiable at sites associated with both the Life of the Buddha and the spread of early Buddhism, as there seems to have been a significant investment in the maintenance and expansion of these sites during this period. However, due to the methodology of this investigation at Lumbini, and the focus on the relationships between the pre-Mauryan and Mauryan periods, very little new data was identified regarding this period of occupation, Period VI, at the site. The same issue of poor artefact visibility mentioned in regard to Period V holds true into Period VI, and much of the brick-built architecture within the Sacred Garden previously identified as Kushan has been lost or re-built using a mix of Mauryan, Sunga, and Kushan period brick-bats. Again however, a continuous occupation between the preceding and succeeding phases was identified at both the Village Mound and Heli-pad sites, with cultural deposit (1004) from Trench A of the Village mound dating to 255±170 CE (Coningham and Acharya: 2011).

Ceramics from the Kushan period in the Ganga Plain are often very poorly studied and understood. There is a definite decline in the quality of the ceramics during this period, as can be seen at Tilaurakot with the production of Medium Red Ware and Coarse Wares dominating the assemblage (Coningham et al. 2014). At Lumbini this phase is best represented in Trench A of the Village mound where 491 sherds were recovered, consisting of 98.8% RW, 1.0% BSW, and 0.2% P-NBPW (Figure 4.44). The BSW and P-NBPW sherds were very worn and small sherds likely to be residual from the previous phases. Forms for this phase include: Open V-shaped bowls, open bowls, *matakas*, closed mouth vessels, and oil lamps.

4.6 Conclusions

This chapter has summarised the archaeological data available from the long history of excavation at Lumbini. The phasing of the site prior to the most recent excavations has been synthesised as a part of this thesis from the published excavation data available for the site of Lumbini, and is based on previous investigators discussion, descriptions, and emphasis of the relative chronologies and accepted date ranges of certain markers such as Northern Black Polished Ware (NBPW) and brick-built monumental architecture. The phasing of the site by the recent 2011-2013 investigations at the site is based upon the scientific absolute dating of contexts in the sequence and associated materials such as the bricks themselves, and the phasing of ceramic typologies and artefacts is based upon the association of these materials to datable contexts. By presenting the phasing and results of both the

previous and recent excavations, this chapter has highlighted both the differences between past and recent interpretations, and the root of these differences in interpretation.

Due to preconceived ideas of the monumentality of Asokan architecture, based largely on textual narratives and pilgrims accounts, previous investigators have not excavated below the perceived 'Mauryan Horizon' of brick architecture. Recent excavations below this brick horizon in the Maya Devi Temple have revealed a continuity of both brick and timber structures from the pre-Mauryan Period II and III phases into Period IV, which appears to be contemporary with the Mauryan period. In addition, these excavations have provided more evidence of the materials and construction of the Period IV Maya Devi Temple. This methodology has not only highlighted the continuities in the structural sequence across the site, but also the continuities in the ceramic sequence. Much of the dating of the previous excavations was based on the presence of certain ceramics such as NBPW which are thought to indicate either Mauryan or 'pre-Mauryan' occupation. However, by looking beyond these markers and examining the ceramic assemblage as a whole, it is possible to identify the continuities in the production of certain local wares such as Cord-Impressed Ware. The identification of these continuities has been enabled by the absolute dating of assemblage contexts, rather than relative dating of the assemblages themselves, resulting in the creation of scientifically dated ceramic chronologies. The following chapter will address the significance of these continuities for the reliability of the aforementioned period markers, such as NBPW, and the evidence for or against the physical existence of the 'Mauryan Horizon' at Lumbini. The data summarised here, including the forms within the wares, will then be further analysed, comparing the assemblages from across the various regions of the site, and with other comparable sites in the region such as Gotihawa.

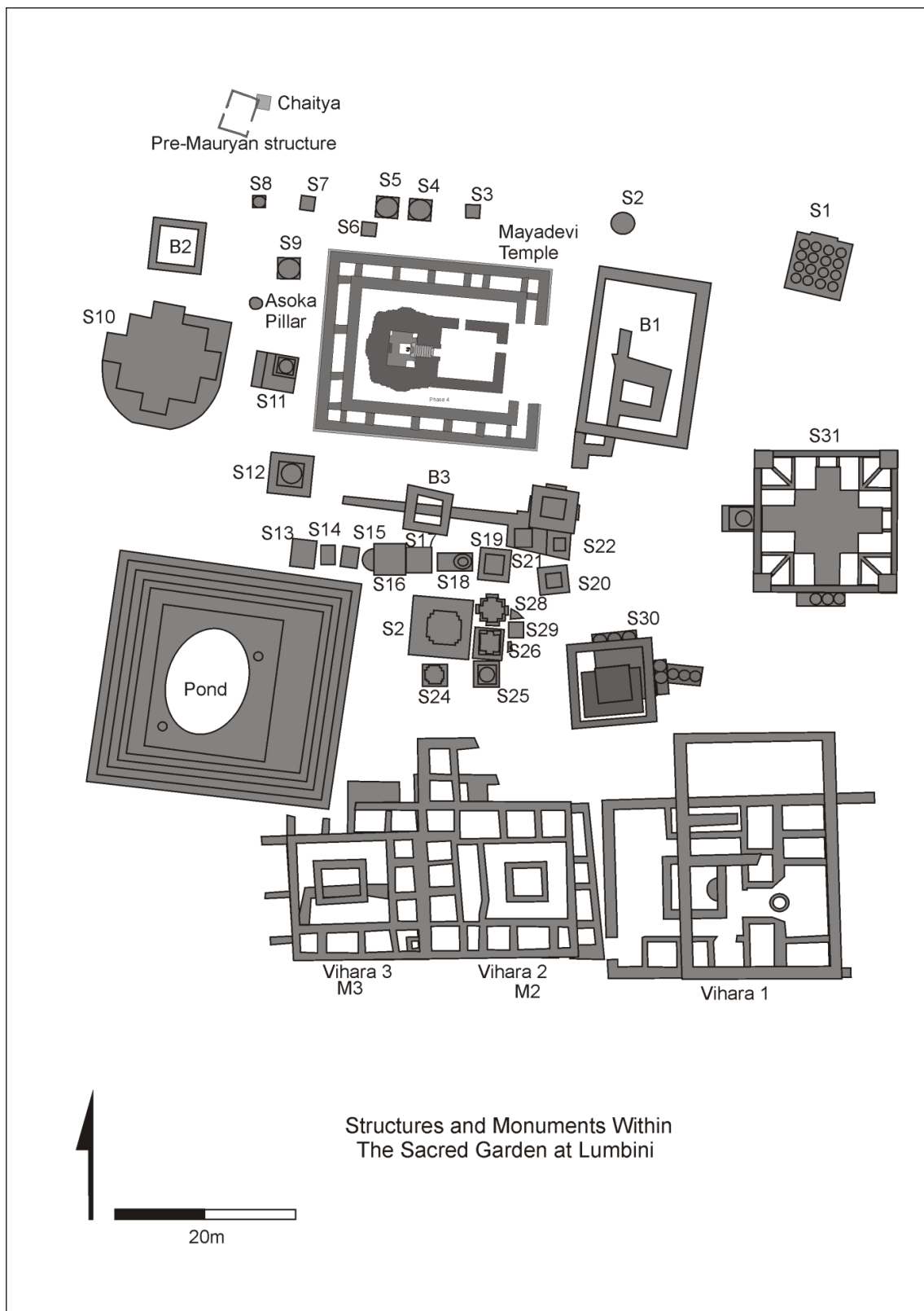


Figure 4.1. Bidari's plan of the structures and monuments in the Lumbini Sacred Garden (from Bidari 2001).

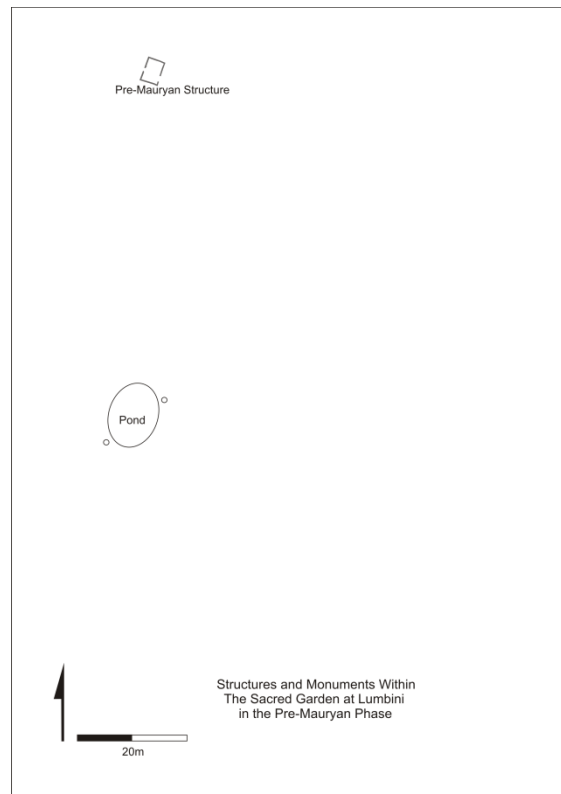


Figure 4.2. Plan of pre-Mauryan structures in the Sacred Garden previous to 2011-2013 investigations.

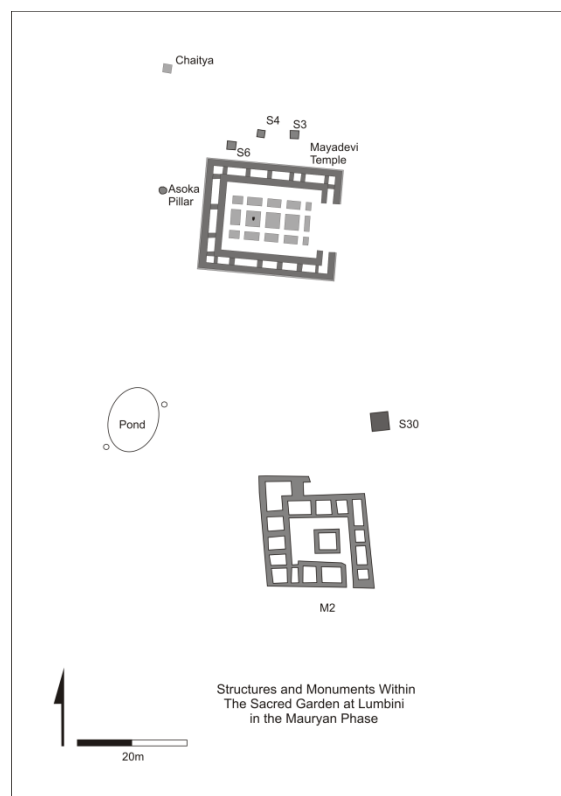


Figure 4.3. Plan of Mauryan structures in the Sacred Garden previous to the 2011-2013 investigations.

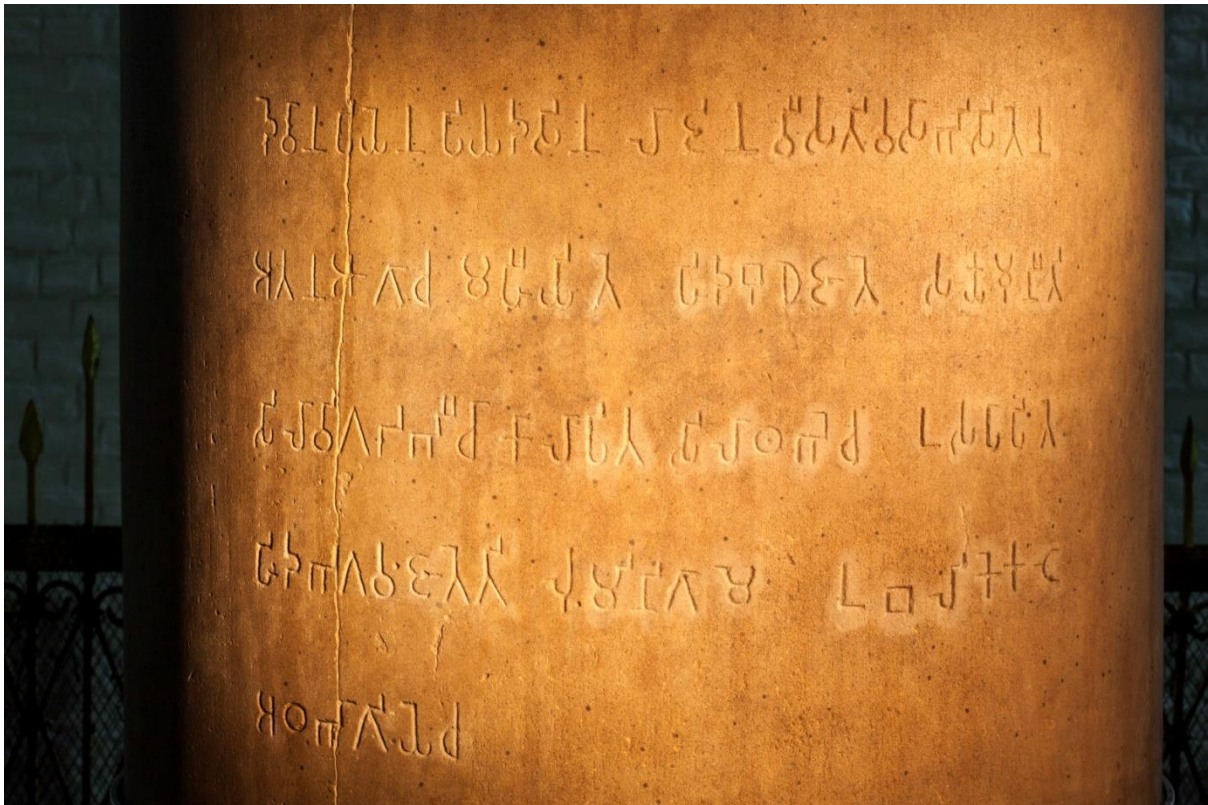


Figure 4.4. Photo of the Brahmi inscription on the Asokan pillar at Lumbini. Photo courtesy of Ira Block.

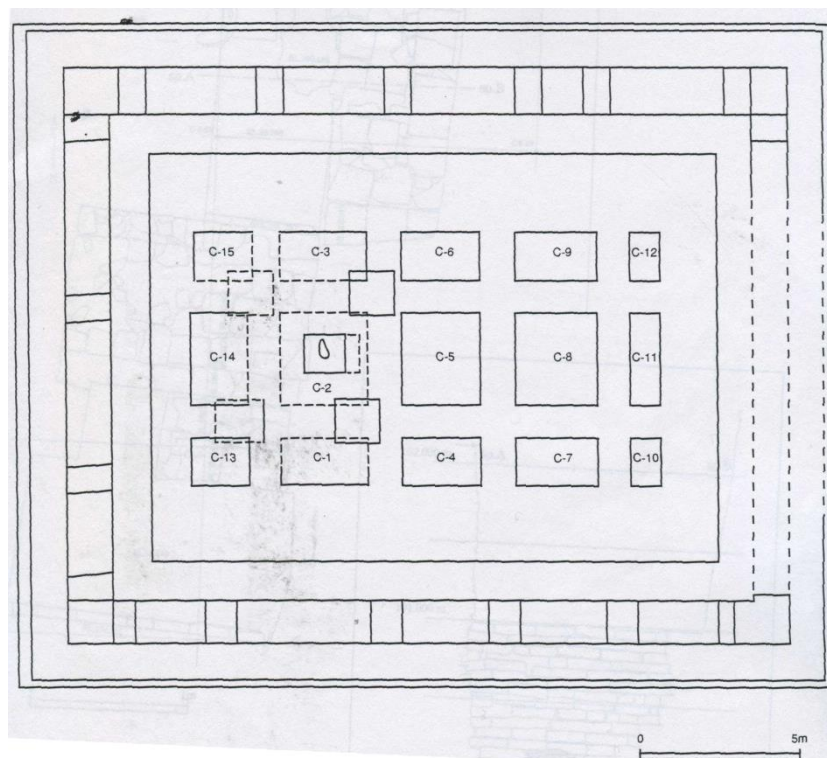


Figure 4.5. Japanese Buddhist Federation plan of the Mauryan phase of the Maya Devi Temple at Lumbini (from Uesaka 2001).

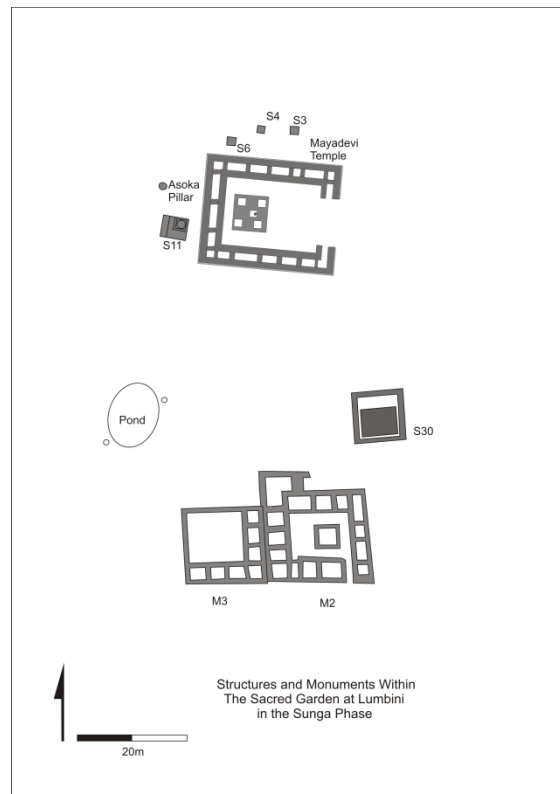


Figure 4.6. Plan of structures in the Sacred Garden during the Sunga period, previous to the 2011-2013 investigations.

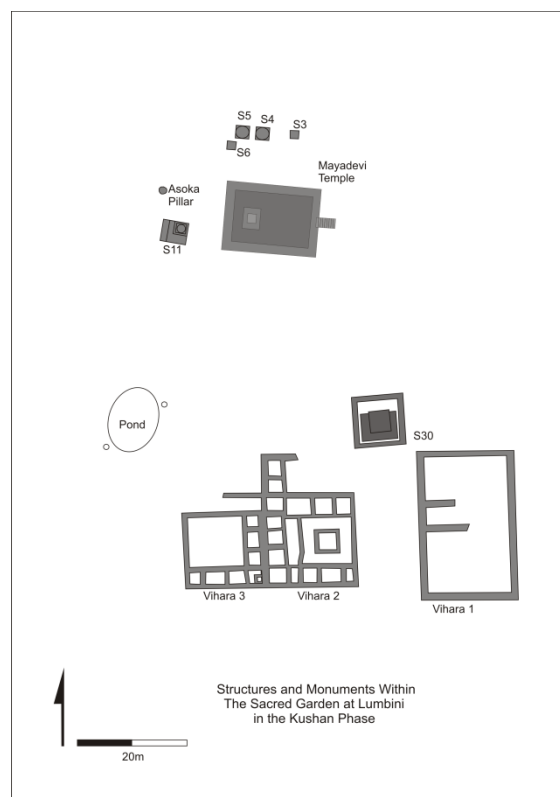


Figure 4.7. Plan of structures in the Sacred Garden during the Kushan period, previous to the 2011-2013 investigations.

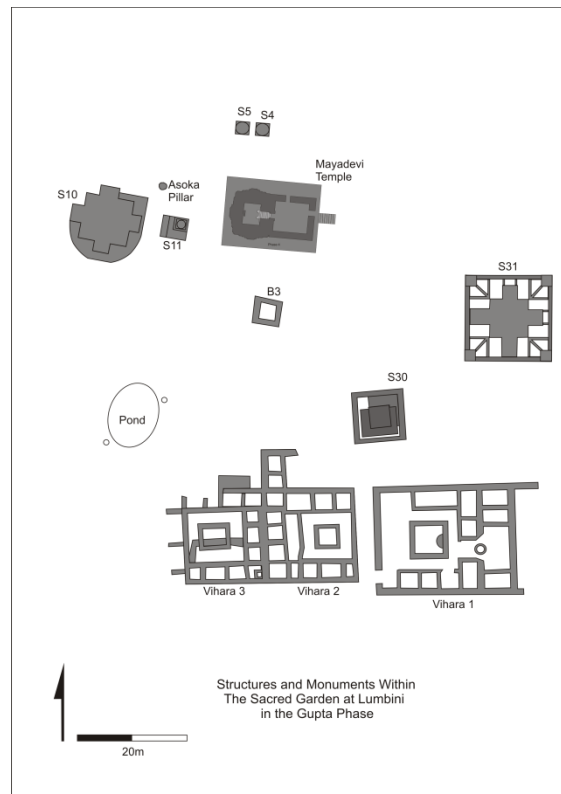


Figure 4.8. Plan of structures in the Sacred Garden during the Gupta period, previous to the 2011-2013 investigations.

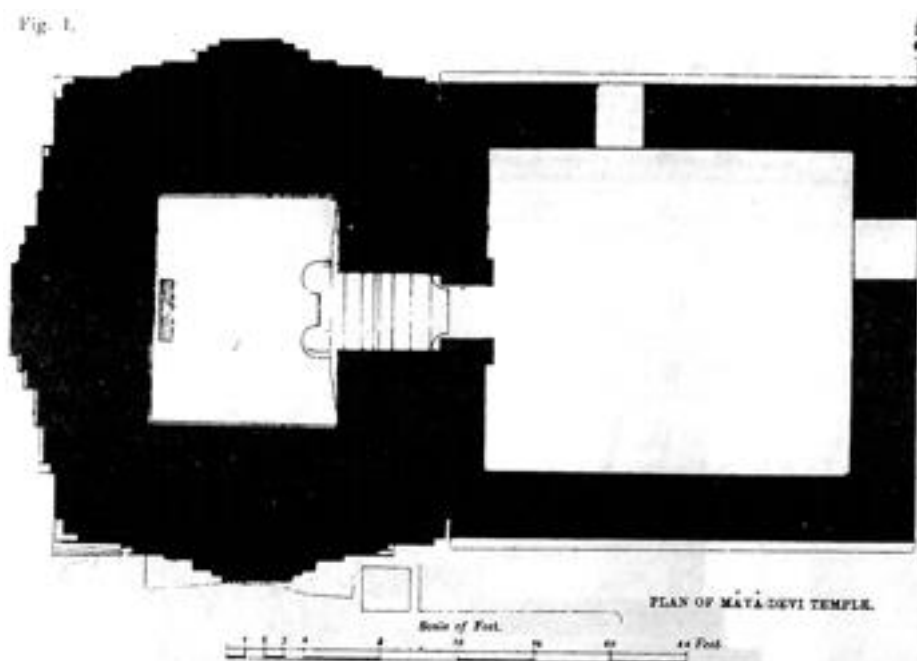


Figure 4.9. Mukherji's plan of the Gupta period Maya Devi Temple (from Mukherji 1901).

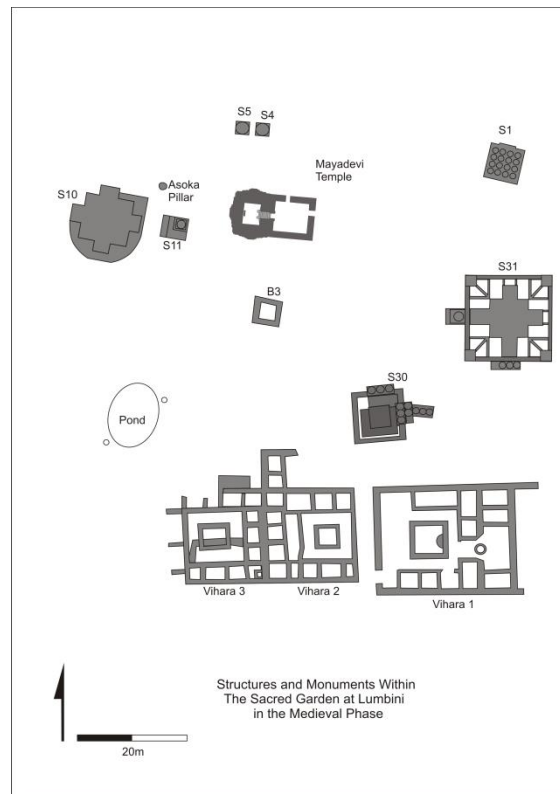


Figure 4.10. Plan of structures in the Sacred Garden during the Medieval period, previous to the 2011-2013 investigations.



Figure 4.11. Mukherji's photo showing four periods of the Maya Devi Temple (from Mukherji 1901).

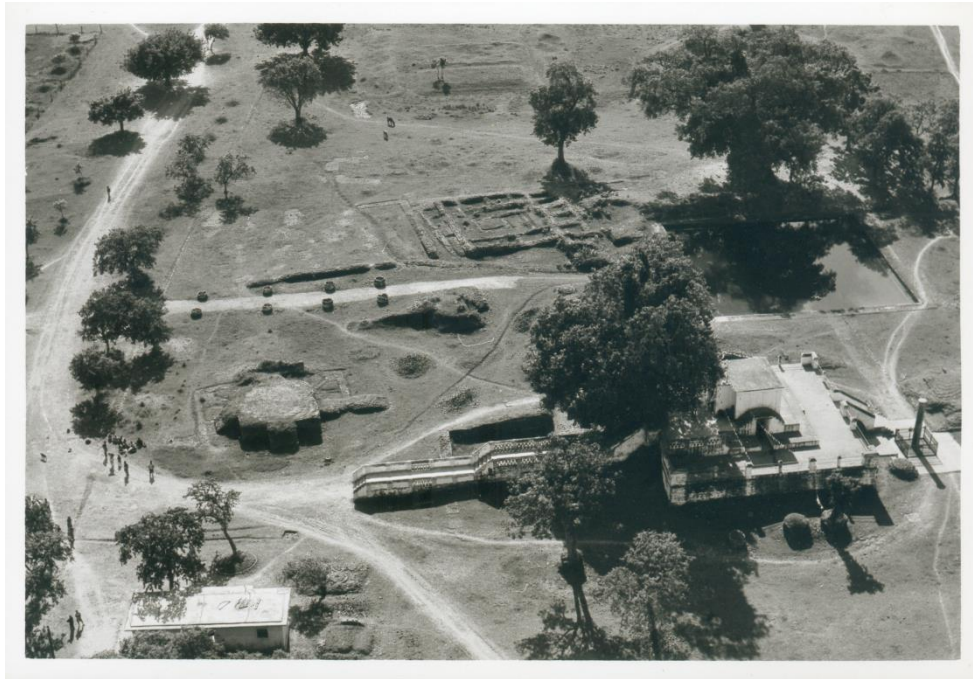


Figure 4.12. Aerial photo of the Sacred Garden at Lumbini in 1969. From the Allchin collection, held by the Ancient India and Iran Trust, Cambridge.



Figure 4.13. Aerial photo of the Maya Devi Temple and Sacred Garden in 2012. Photo courtesy of Mark Household.



Figure 4.14. Excavations inside the modern Maya Devi Temple in 2011. Photo courtesy of Durham University.



Figure 4.15. Northern Black Polished Ware from Sonkh Museum

(Image source [http://Northern Black Polished Ware#mediaviewer/File:Fragment - Northern Black Polished Ware - 500-100 BCE - Sonkh - Showcase 6-15 - Prehistory and Terracotta Gallery - Government Museum - Mathura 2013-02-24 6458.JPG](http://Northern%20Black%20Polished%20Ware#mediaviewer/File:Fragment_-_Northern%20Black%20Polished%20Ware_-_500-100_BCE_-_Sonkh_-_Showcase_6-15_-_Prehistory_and_Terracotta_Gallery_-_Government_Museum_-_Mathura_2013-02-24_6458.JPG)).

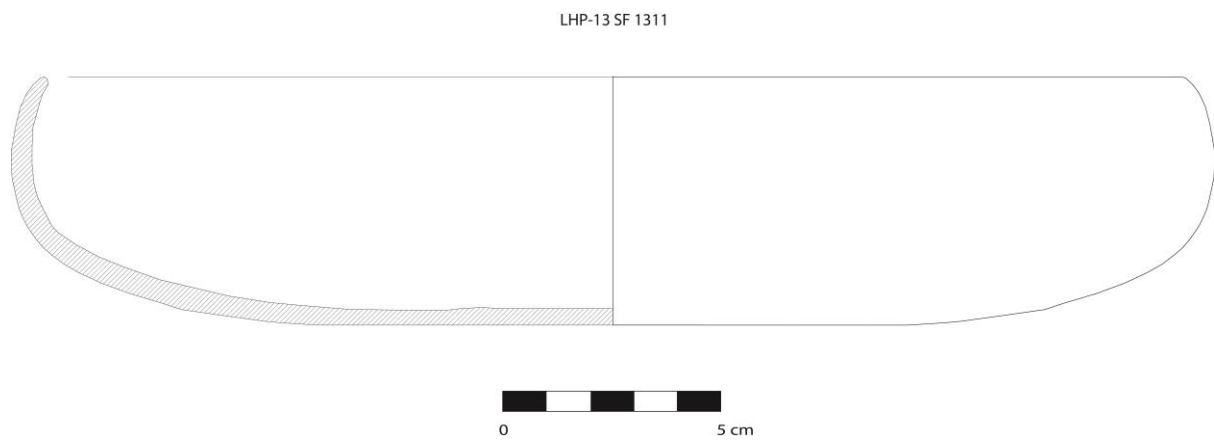


Figure 4.16. Thali form from 2011-2013 excavations at Lumbini. Drawing by Sofia Turk, Durham University.



Figure 4.17. Sherd of proto-Northern Black Polished Ware from 2011-2013 excavations at Lumbini. Photo by author.

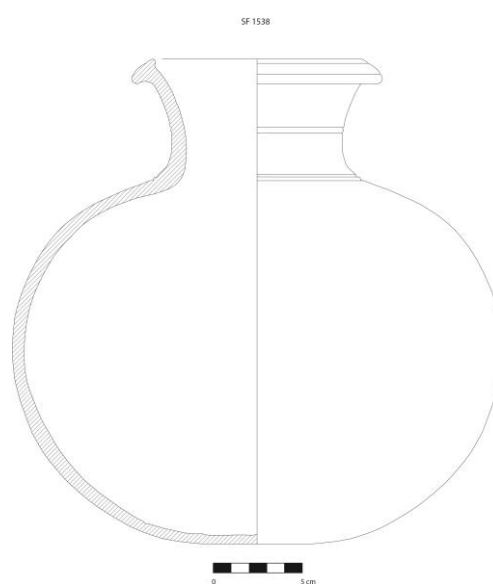


Figure 4.18. Ghara/mataka form, 2011-2013 excavations at Lumbini. Drawing by Sofia Turk, Durham University

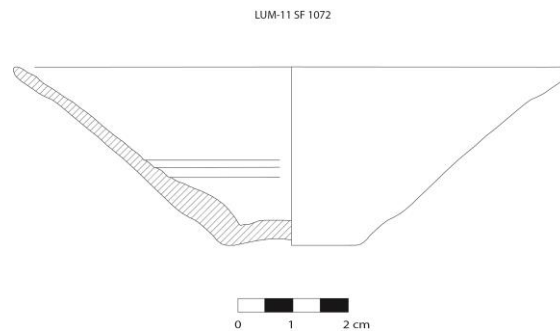


Figure 4.19. V-shaped open bowl form, 2011-2013 excavations at Lumbini. Drawing by Sofia Turk. Durham University.

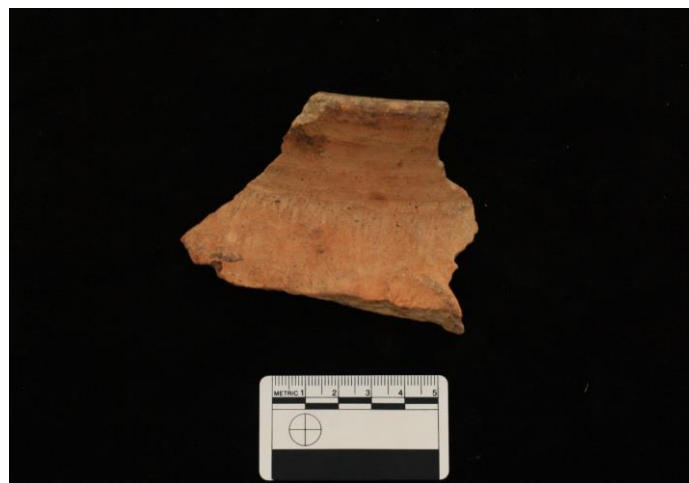


Figure 4.20. Cord-Imprinted Ware rim sherd of mataka form, 2011-2013 excavations at Lumbini. Photo by author.



Figure 4.21. Cord-Imprinted Ware from Gotihawa (from Verardi 2007).

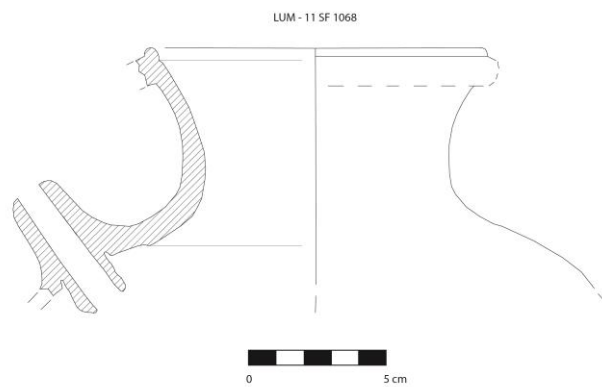


Figure 4.22. Ghara form vessel, 2011-2013 excavations at Lumbini. Drawing by Sofia Turk, Durham University.

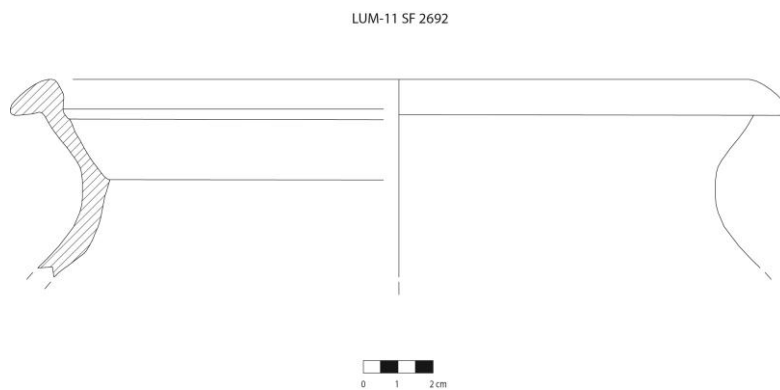


Figure 4.23. Globular storage jar, 2011-2013 excavations at Lumbini. Drawing by Sofia Turk, Durham University.



Figure 4.24. Form Y storage jar, 2011-2013 excavations at Lumbini. Photo by author.

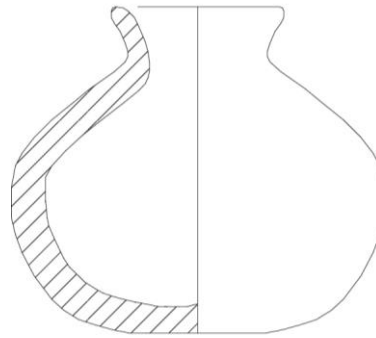


Figure 4.25. Small vase (*kaitya*) form, 2011-2013 excavations at Lumbini. Drawing by Sofia Turk, Durham University.



Figure 4.26. Cooking vessel handi/basin with ledge handle from 2011-2013 excavations at Lumbini. Photo by author.

LUM-11 SF 2705

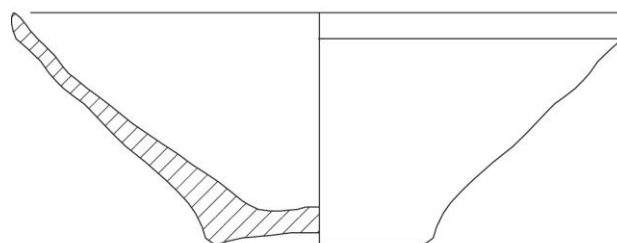


Figure 4.27. Oil Lamp from 2011-2013 excavations at Lumbini, Drawing by Sofia Turk, Durham University.



Figure 4.28. Painted Grey Ware from Sonkh Museum

(Image source http://Painted_Grey_Ware_culture#mediaviewer/File:Painted_Grey_Ware_-_Sonkh_-_1000-600_BCE_-_Showcase_6-15_-_Prehistory_and_Terracotta_Gallery_-_Government_Museum_-_Mathura_2013-02-24_6461.JPG)

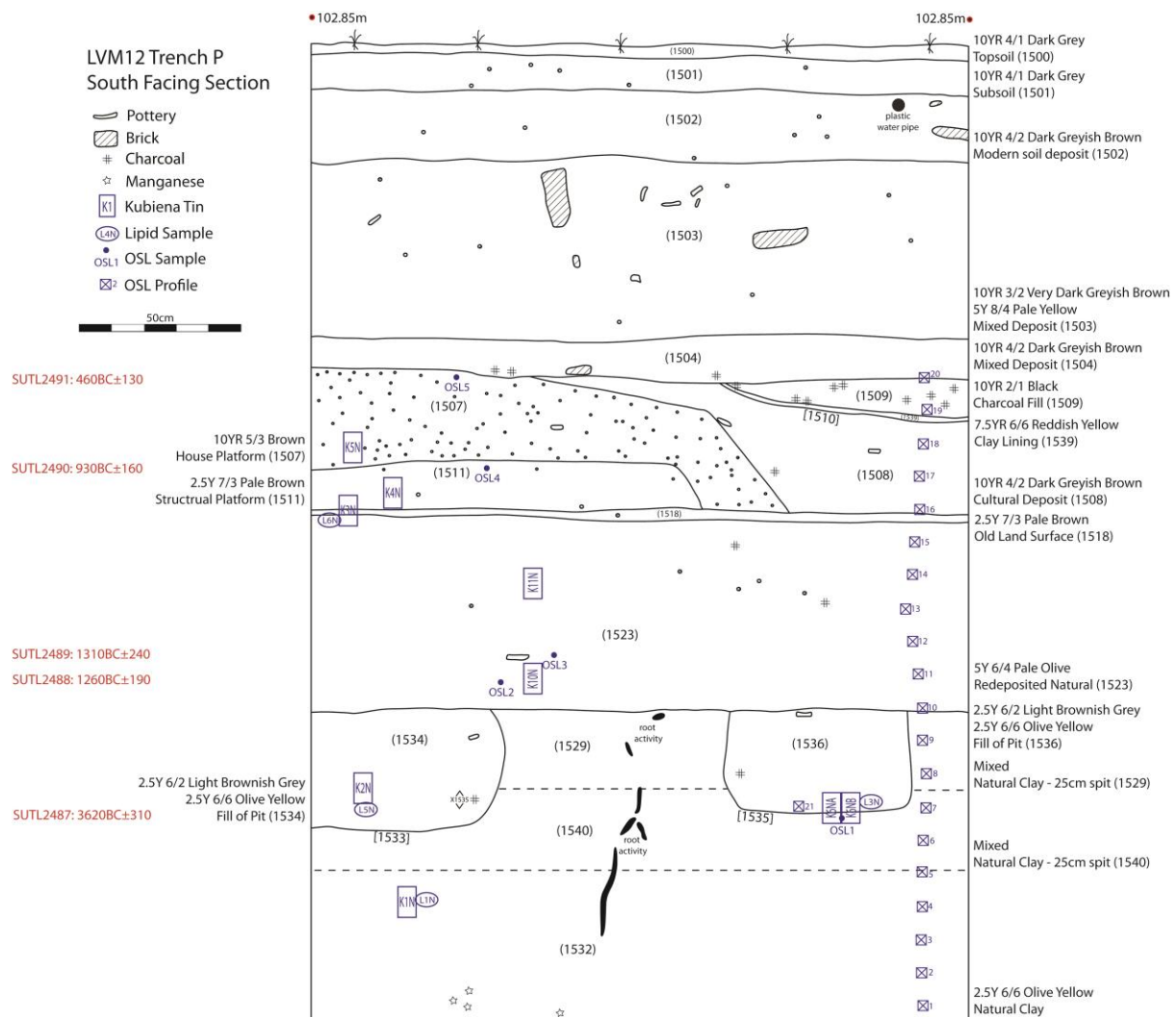


Figure 4.29. Lumbini Village Mound Trench P, South facing Section with OSL and Radiocarbon dates. Drawing by Keir Strickland.

Ceramic Asemblage Period I

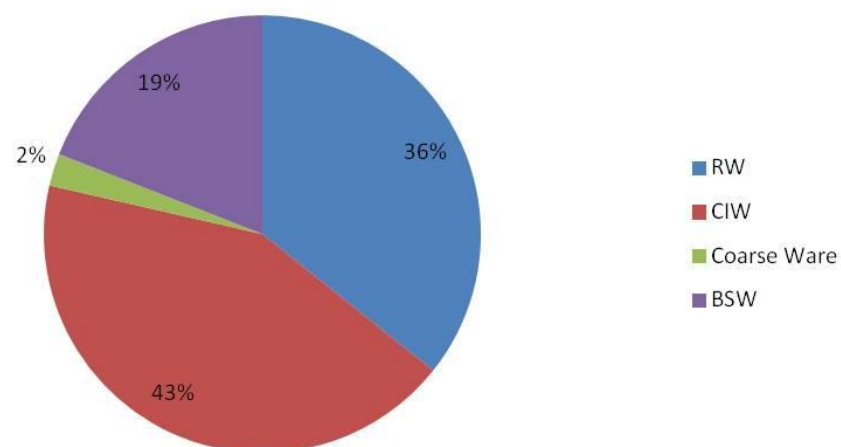
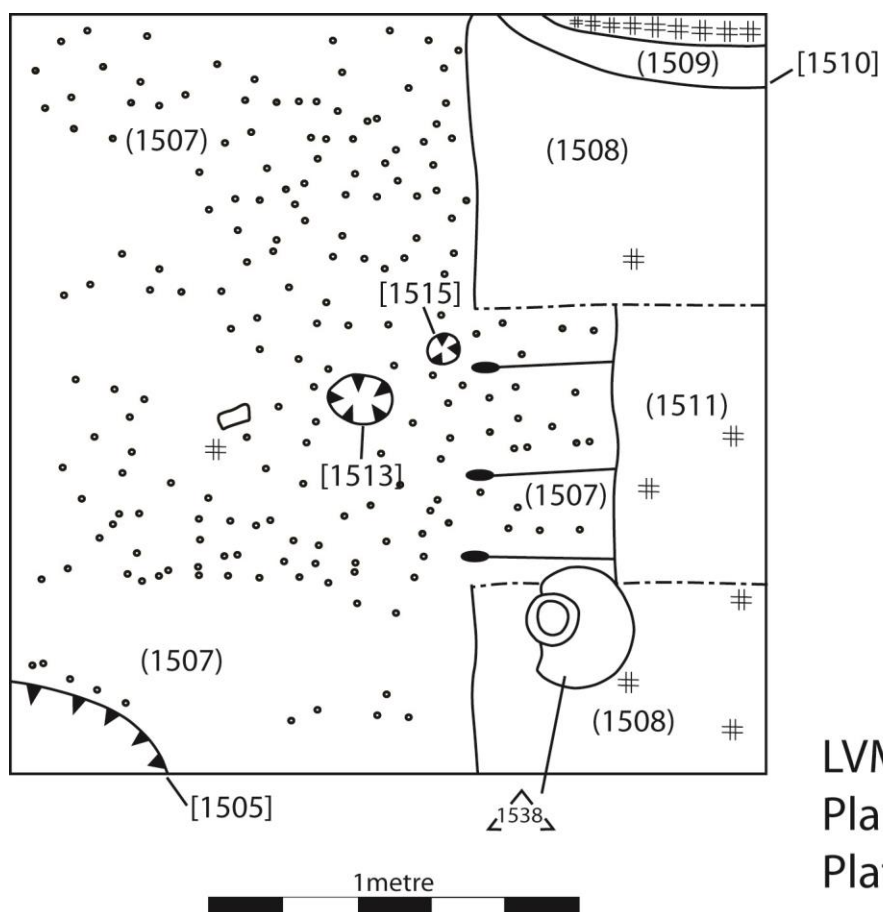


Figure 4.30. Ceramic Assemblage LVM Trench P, Period I (Late Chalcolithic).



LVM12 Trench P
Plan of Structural
Platform (1507)

- Pottery
- Charcoal
- Brickbat

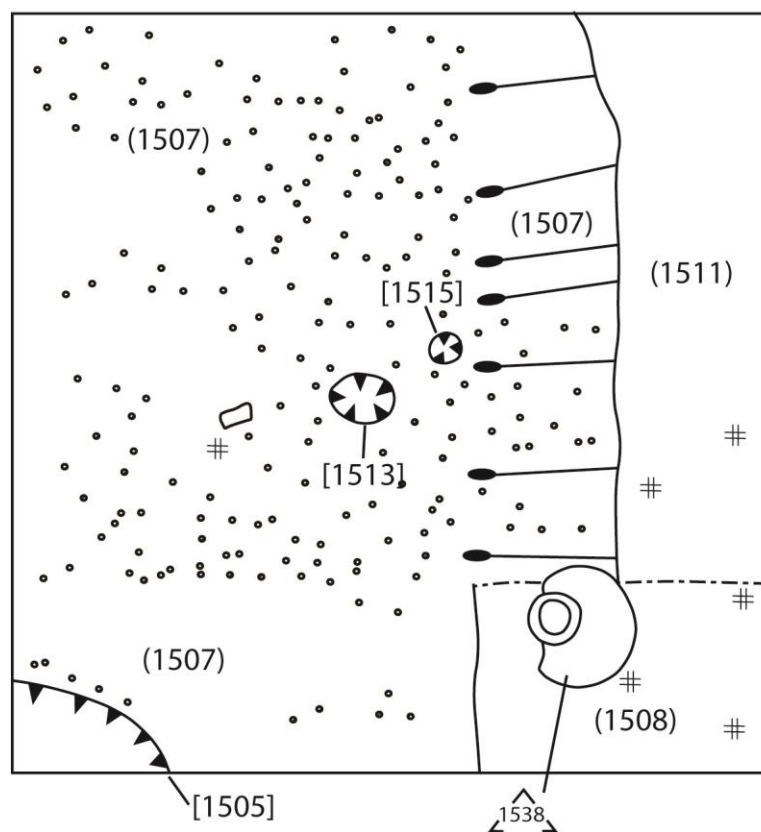


Figure 4.31. Lumbini Village Mound trench P, plan of period II paleosurface. Drawing by Keir Strickland.

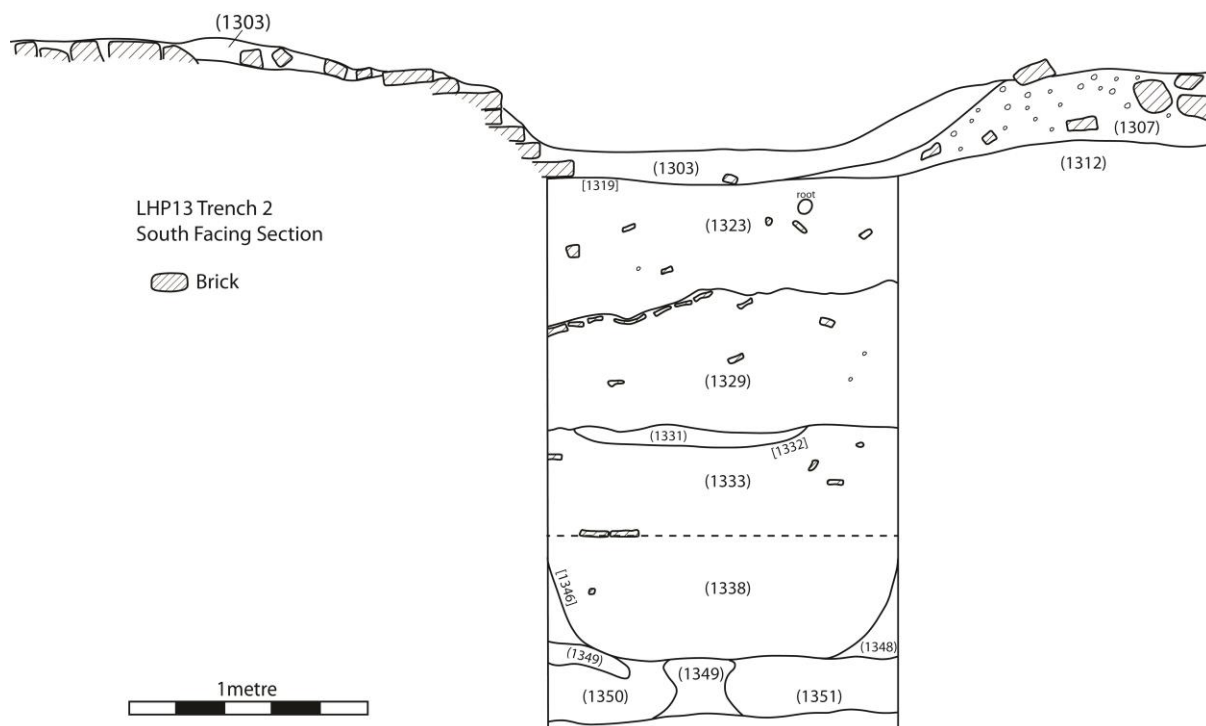


Figure 4.32. Section drawing of Lumbini Heli-pad Trench 2, south facing section. Drawing by Keir Strickland.



Figure 4.33. Photo of Period II context, Maya Devi Temple Trench C5b. Photo from Durham University.

Trench P Ceramic Assemblage Period II

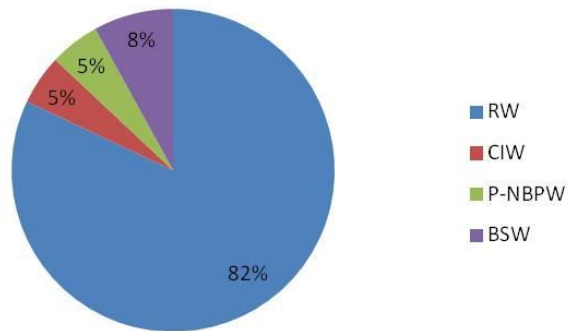


Figure 4.34. Lumbini Village Mound Trench P ceramic Assemblage Period II.

LHP-13 Tr. 2 Ceramic Assemblage Period II

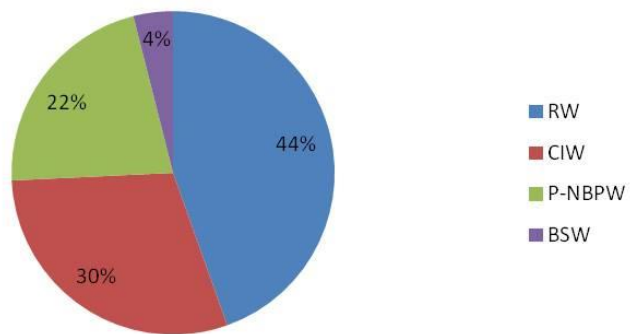


Figure 4.35. Lumbini Heli-pad Trench 2 Ceramic Assemblage Period II.



Figure 4.36. Photo of Period III brick Kerb in the Maya Devi Temple Trench C5b. Photo from Durham University.

LHP-13 Tr. 2 ceramic Assemblage Period III

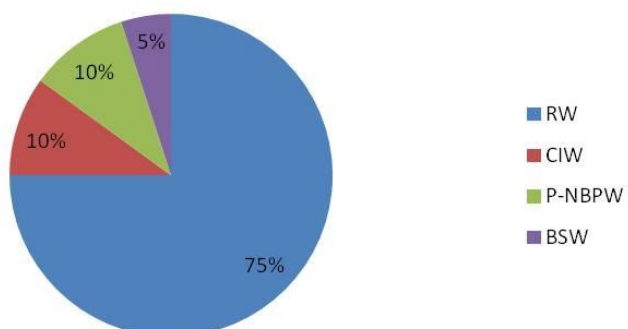


Figure 4.37. Lumbini Heli-pad Trench 2 ceramic assemblage Period III.

LMS-12 Tr. 2 Ceramic Assemblage Period III

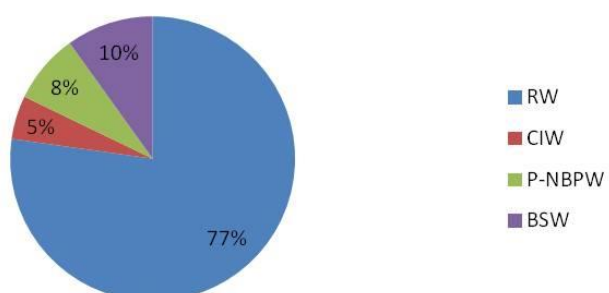


Figure 4.38. Lumbini Monastery Trench 2 ceramic assemblage Period III.

MDT-12 Tr. C5b Ceramic Assemblage Period III

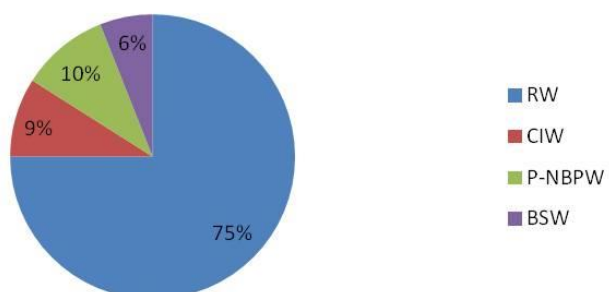


Figure 4.39. Maya Devi Temple Trench c5b ceramic assemblage Period III.

MDT Ceramic Assemblage Period IV

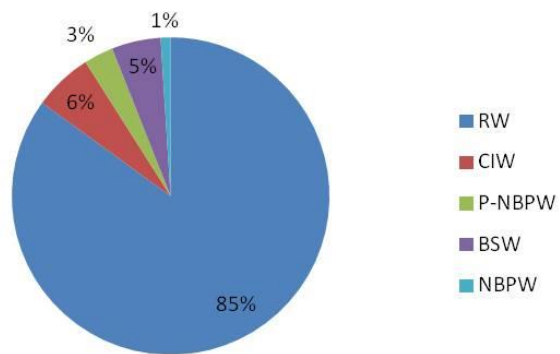


Figure 4.40. Maya Devi Temple ceramic assemblage Period IV.



Figure 4.41. Drawing of interlocking terracotta tile from Maya Devi Temple. Drawing by Sofia Turk, Durham University.

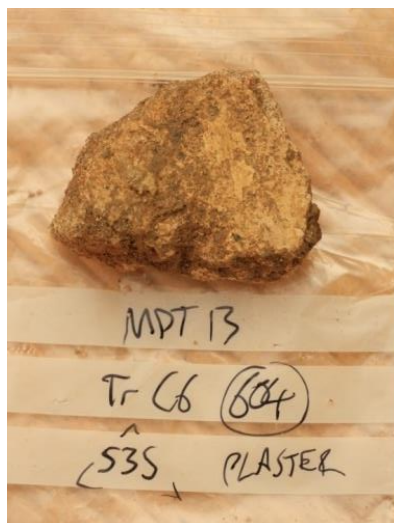


Figure 4.42. Plaster from the Maya Devi Temple. Photo by author.

LMS-12 Tr. 1 Ceramic Assemblage Period V

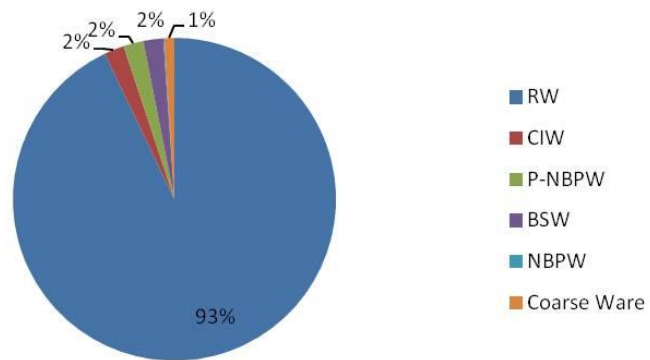


Figure 4.43. Lumbini Monastery Trench 1 ceramic assemblage Period V.

LVM-11 Tr. A Ceramic Assemblage Period VI

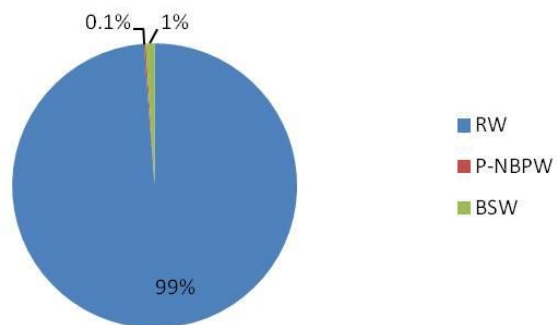


Figure 4.44. Lumbini Village Mound Trench A ceramic assemblage Period VI.

Chapter 5:

The Mauryan Horizon at Lumbini

5.1 Introduction

Chapter Four began the assessment of Objective Four of this thesis project: having defined the typical archaeological ‘markers’ used to identify both Buddhism and the Mauryan Empire, to compare these anticipated markers with the archaeological evidence from Lumbini. The chapter reviewed the past investigations and excavations of Lumbini, and analysed their methodologies through the interpretation of phasing and chronology in the associated published materials. This was carried out with reference to the results and interpretations of the 2011-2013 investigation of the site, and the analysis contained in this thesis of the ceramics, architecture, and other artefacts. The assessment of past methodologies highlighted various problems associated with the use of these markers, and with the phasing of the site prior to 1997.

The purpose of Chapter Five is to conclude this analysis by assessing the material recovered from Lumbini for the presence or absence of the Mauryan and Buddhist ‘markers’, and for evidence of regional variation and cultural continuity in the assemblages described in Chapter Four. This analysis will test the usefulness or problems associated with relying on these homogenous and potentially biased markers as archaeological indicators of occupation period and function. As described in Chapter Four, the recent excavations at Lumbini have revealed an unbroken sequence from the twelfth century BCE Period I through the Mauryan period of Period IV in the third century, and into the present, providing an excellent opportunity to examine the continuities and changes at the site through the so-called ‘Mauryan Horizon’.

As described in Chapter Two, the primacy of the written word has become well established in Buddhist scholarship, insinuating itself into every facet of inquiry. The roots of this hegemony have been clearly laid out and the implication and development of these roots have been examined in depth. The overwhelming focus on art and architecture in the archaeology of Buddhism throughout the nineteenth and twentieth centuries has meant that the remains have served only to provide illustrations to the texts, and led to archaeological emphasis of the monumental brick and stone architecture believed to date to the Mauryan Period (Coningham 1998: 122; 2011: 934; Coningham et al. 2013). This ‘Mauryan Horizon’ is apparently the result of a large-scale building and propaganda

campaign instigated by the Emperor Asoka in the third century BCE, as evidenced by the more than 50 boulder and pillar inscriptions (Falk 2006) and numerous *stupas*, *viharas* and shrines constructed all over the Subcontinent. This horizon of brick and stone is particularly strong at the four major sites of Buddhist pilgrimage associated with the life of the Buddha—Lumbini, Bodh Gaya, Sarnath, and Kusinagara (Coningham et al. 2013: 1105). This is partly due to the monumentality of the Mauryan architecture, but also to the clearing activities of the antiquarians in the nineteenth century, and the reconstruction and conservation practices of archaeologists such as John Marshall (ibid.). Therefore the recent excavations at Lumbini have presented a unique opportunity to break through the ‘Mauryan Horizon’ and examine the continuities and changes of the site during this important period in the history of Buddhism in South Asia. Beyond the architectural evidence, the ‘Mauryan Horizon’ is generally thought to be represented by what might be termed the ‘imperial cultural package’, consisting of ceramic wares such as Northern Black Polished Ware, punch-marked coins, and new techniques in the production of terracotta art and figurines, baked-brick structures, fortifications and other appurtenances of Gangetic urbanisation. The bias towards brick and stone architecture as well as ‘imperial’ artefacts is not limited to archaeologists however, and there also seems to be reluctance for textual scholars to look beyond the ‘Mauryan horizon’ for answers about the early nature of sites.

In a recent publication Harry Falk has reassessed the translation of the Asokan inscription at Lumbini in the hope of discovering why there is no Mauryan *stupa* at the site (2012). Falk reflects on the term ‘*athalbhagiya*’ in the Asoka inscription and suggests that rather than denoting a reduction of taxes from one-sixth to one-eighth, the term refers to a portion of the Buddha’s ashes—that Asoka provided Lumbini with a share of the Buddha’s ashes for the first time (2012: 205). If this is indeed the case then presumably something must have been built at the site to enshrine the ashes. Falk refers to the Niglihawa inscription, which states that in the fourteenth year of his reign Asoka paid tribute to Buddha Konagamana by having the *stupa* marking his birthplace enlarged. In comparison, the Lumbini inscription makes no mention of the fourteenth year or a *stupa* (2012: 205). Falk posits that this omission in the inscription and the absence of any description of a Mauryan *stupa* in any of the Chinese travellers accounts is evidence that prior to Asoka’s visit “...no *stupa* hallowed the place in memory of the birth of the Buddha...Lumbini initially had nothing at all until Asoka provided the site with relics and a pillar and thereby made it a powerful site for pilgrimage” (2012: 207). In order to explain the ‘missing’ Asokan *stupa* at Lumbini, Falk once again looks to the Asokan inscription, this time reflecting on the description of a *vigvadabhi* made of stone. This has previously been interpreted as referring to the pillar’s capital or to the pillar’s enclosing wall, but Falk posits “that if we take Asoka seriously we can also say that *vigvadabhi* in the Lumbini text is on par with the *stupa*

at other sites, that is, the most prominent construction in its own right and not a secondary enlargement of the pillar or *stupa*” (2012: 209). Falk once again refers to the textual sources to discover what exactly ‘deserved’ to be marked at Lumbini, noting that all of the pilgrim accounts mention the Bodhi tree, and that if this was the case it is very unlikely that Asoka would build a *stupa* under the tree, thinking it much more likely that the tree would have been surrounded by a railing (ibid.: 210). Therefore the *vigvadabhi* described in the Lumbini inscription does not refer to the horse capital but a stone railing around the Bodhi tree, likely with a stone pedestal housing the Buddha’s ashes. Furthermore, Falk proposes that the stone railing from Lumbini was in fact the same railing now found at Sarnath. This far-fetched link is based on the fact that in his excavation report of Sarnath in 1906, Marshall remarked,

The railing is in fact a remarkable ‘tour de force’, and was undoubtedly erected, in the first instance, on some hallowed spot. Whether this spot is the one on which it now stands, cannot be definitely affirmed. The railing is unfortunately badly fractured, and must have been so from an early age, as there are large breakages on the north and west sides, which had been made good with brick-work long before the main shrine, as it now stands, was built. It is quite possible, that the railing originally stood elsewhere and was transferred to this spot in sections, after it had been broken, perhaps at the time that the later inscription was engraved upon it (Marshall 1907: 89).

For the final link, Falk again refers to the written word and interprets one of the inscriptions on the railing (mentioned by Marshall) as recognising the Saravastivadians, a group of monks, as the caretakers of the railing. This inscription supplanted a previous inscription naming the Sammatiyas the caretakers of the railing. Falk inferred from the overwriting that these two groups were rivals at Sarnath, and as Xuanzang’s account tells of thirty monks of the Sammatiya school present at Kapilavastu, it apparently seemed plausible that they were also present at Lumbini (Falk 2012: 215). The journey of the railing began with its destruction at Lumbini, possibly in the latter half of the second or early part of the first century BCE, followed by the removal of the remains by local Sammatiya monks and the reinstallation of the railing at Sarnath. This journey concluded with the building of a square pedestal built of bricks, likely copying the original pedestal at Lumbini (ibid.).

Falk’s work at Lumbini illustrates several of the main issues in South Asian scholarship addressed in this thesis, including an almost total reliance on textual sources, the monumentality of stone and brick, and Asoka and the Mauryan Empire as the agent of Buddhism. Falk constructed this narrative based entirely on the interpretation of the inscriptions and historical accounts, whilst his use of

archaeology is an afterthought and the evidence that he cites is outdated and unsubstantiated. This textual bias is not due to the lack of archaeological data, but a fundamental lack of understanding of the discipline and its function. His focus on stone and brick architecture is the very same 'Mauryan Horizon' that runs across the Subcontinent and the Early Historic period. Finally, Falk's assertion that Lumbini "initially had nothing at all until Asoka provided the site with relics and a pillar..." (2012: 207) once again reinforces this horizon, and places Asoka (and the Mauryan Empire) as the agent of change at Lumbini, ignoring the more localised cultural traditions and denying the cultural continuities throughout Lumbini's long history.

In contrast to Falk's conclusions, a recent publication on the site described the sequence at Lumbini as "a microcosm for the development of Buddhism from a localised cult to a globalised religion as it was transformed from a cardinally-oriented timber structure with a localised ceramic package into a monumental Asokan-period temple with pillar inscribing it as a site of imperial pilgrimage" (Coningham et al. 2013). As mentioned in Chapter Three, Monica Smith has been redefining the way in which we think about the Mauryan Empire and the notion of 'empires' in general. Like many of her contemporaries, Smith challenges the primacy of the written word by examining the way in which the Mauryan Empire has been defined and portrayed in the past. The Mauryan Empire is often thought of as the first empire of South Asia, spanning most of the Subcontinent from present-day Afghanistan in the west to Bangladesh in the east and Nepal in the north. In early scholarship it was likened to the extent of British India, portraying a large homogenous territory with a central administration. However, Smith's network or nodes-and-corridors model, borrowed from biology, hypothesises a far more fluid and dynamic method of polity formation, maintenance, and growth (2007: 28). Whilst Smith's work is important for challenging the homogenous model of the Mauryan Empire that has been constructed over the last two centuries, it has yet to be tested on a micro-level—that is, it has yet to be applied to a particular archaeological site. In order to correct this, both Romila Thapar and Monica Smith's models will be tested against a number of sites, including Lumbini, in Chapter Six, based on the discussion and conclusions of the current chapter.

The current chapter will utilise the archaeological data from Lumbini provided in Chapter Four to highlight the importance of breaking through the 'Mauryan Horizon' in order to understand the full extent of the cultural sequence, and what this means for the study of the Mauryan Empire and early Buddhism. This will be achieved by first explicitly defining the 'Mauryan Horizon' at Lumbini in both the structural and artefactual sequences, and then by examining the archaeological data for the 'markers' of Buddhism and of the Mauryan Empire described in Chapter Three. The second half of this chapter will examine interactions between the three main areas at the site, the Village Mound,

the Monastery, and the Temple, by comparing and contrasting the archaeological material of these sacred and the secular areas. Finally, the archaeological data from Lumbini will be compared to the nearby site of Gotihawa to determine how Lumbini fits into the regional landscape in terms of its architectural and material culture.

5.2 Defining the 'Mauryan Horizon' at Lumbini

Until recently the phasing of the brick built monuments within the Sacred Garden at Lumbini, based on relative dating sequences, has proved difficult as the site has undergone significant changes and reconstructions in the twentieth century, very few of which have been recorded. The levelling of the Sacred Garden in the 1930's means that the entire site is covered by a thick layer of brick rubble, and identifying the Mauryan monuments based on the structures themselves has become next to impossible. However, the presence of the Asokan pillar, and the Thermo-Luminescence and OSL dating of bricks exposed by the JBF as the 'basement' of the Asokan temple have provided evidence of a monumental Mauryan presence at the site (Coningham and Acharya 2012). The 'Mauryan Horizon' at the site can be defined in both the structural and ceramic sequences, and is represented in the interface between the brick-built Mauryan platform (Period IV), and the earlier brick kerb and timber structure (Period III). The 'horizon' can also be seen in previous interpretations of the ceramic sequence with the introduction of Northern Black Polished Ware and its transitional phase of Proto-Northern Black Polished Ware. However, as has been reiterated throughout this thesis, the danger lies in focusing on the brick-built monumental remains and the Mauryan markers such as NBPW without understanding the cultural sequence that came before. By focusing on the transitional structural phases and the earlier 'regional' ceramics such as CIW and P-NBPW and the later 'imperial' ceramics such as NBPW it is possible to identify the changes that occurred during the Mauryan period, and perhaps more importantly, the continuities in the structural and ceramic sequences between these periods. It is this examination of the continuities and changes in the archaeological record during the transitional phase at Lumbini that will provide the key to understanding the extent and nature of influence and control by the Mauryan Empire at Lumbini. If the Mauryan Empire was, as many have believed (Thapar 1960; Allchin 1995), a centralised state controlling much of the Subcontinent, then it might be assumed that the architecture and material culture of Lumbini should display a distinct archaeological signature, reflecting significant colonising influences with 'imperial' wares becoming more prevalent and monumental architecture spreading across the landscape. Thapar's own later model offers a variation on this assumption, predicting varying levels of cultural homogeneity between a central metropolitan state, core regions of

administration, and peripheral regions, with only the elite of the Empire expected to share religion, language, and culture. However, if the Mauryan Empire was, as Monica Smith suggests, a loosely knit series of networks and spheres of influence, then the archaeological signature at a site like Lumbini may be far more indistinct, with 'imperial' ceramic and artefactual traditions being introduced and co-existing alongside more 'regional' or 'localised' traditions such as Cord-Imprinted Ware; and 'traditional' timber, and wattle-and-daub architectural techniques continuing to be used alongside the new 'imperial' monumental brick architecture. Essentially, these models reflect the difference between looking for changes in the archaeological record during this 'Mauryan Horizon' at Lumbini, and looking for continuities across it.

5.3 Mauryan Markers at Lumbini

As described in Chapter Three, there are certain markers in the archaeological record that have been used as evidence of the Mauryan Empire. These Mauryan markers are often only vaguely described in excavation reports and very little has been written about the identification of Mauryan sites aside from the prolific literature produced on the Asokan edicts and inscriptions (Filliozat 1967; Barua 1968; Sircar 1979; Irwin 1985; Falk 2006; Chakrabarti 2011). On a majority of the sites excavated, this period is defined by urban features, such as baked-brick structures, ring-wells, soak pits, drains, coinage, and fortifications (Roy 1983: 97). Mauryan period occupation at sites within the Ganga Plain is often referred to as the later Northern Black Polished Ware period, generally overlapping and following the Painted Grey Ware phase at sites in the western region and Black-and-Red Ware phase in the east (ibid.). This characterisation of NBPW as a 'Mauryan marker' is difficult due in part to the long duration of the ware with recent evidence from Ayodhya suggesting that it may have begun as early as c. 1000 BCE (Singh 2008: 260) continuing through to the first century BCE (Roy 1983: 95). In addition, and as described at length in Chapter Three, the identification of NBPW is not always clear as the characteristics of the ware have been reimagined and expanded upon over the years of excavation. In 1983, Roy described five different fabrics of monochrome NBPW, ranging in colours from deep red to steel blue, and from fine ware to medium to coarse ware in the later phases (ibid.: 198). Despite these issues in the chronological span and varied descriptions of NBPW, it has persistently been used as an indicator of Mauryan period occupation. The ceramic assemblage associated with this late phase of NBPW, dating roughly from ca. 330-0 BCE, includes a reduction in the number of sherds of fine NBPW, the disappearance of Black-Slipped Ware and BRW, and an increase in coarse NBPW and Coarse Grey Ware (ibid.: 98). There is also considerable change in the forms of the vessels with tableware of shallow bowls and dishes being replaced with more utilitarian

shapes such as nail-headed basins, rimless carinated *handis*, pans with loop or lug handles, and pear-shaped vases (ibid.). Other markers in the material record include silver punch-marked coins, uninscribed cast coins, terracotta figurines in the 'typical' Mauryan style, and small stone discs known as ring stones (Thapar 2000: 405; Leoshko 2012: 331), but as with the use of NBPW, these markers are not exclusive to the Mauryan period. The primary indication of Mauryan control or occupation at a site is the proximity to, and presence of, an Asokan inscription or edict. In a 2000 publication, Romila Thapar discusses the "surprising lack of evidence associating Mathura with the Mauryan period, other than from excavations. There are no Asokan inscriptions in the vicinity..." (2000: 404), highlighting the primacy of the Asokan inscriptions in the identification of the Mauryan Empire in the archaeological record. Therefore Mauryan sites are first defined by the presence of an Asokan inscription, and secondly through the urban archaeological assemblage described above. When searching for these markers of Mauryan period occupation at Lumbini, a site that does have an Asokan inscription, it is possible to see that many of them do not hold up, and that many are specific to both an elite consumption and urbanism. The following sections represent an analysis of the structural, ceramic, and artefactual evidence for the occupation of Lumbini in the Mauryan period, in order to test the validity of these 'Mauryan markers'. In the discussion that follows, the Periods I - VI described in Section 4.6 will continue to be used in relation to the evidence of the 2011-2013 excavations, in order to highlight the separation of the evidence of these phases from any assumptions of Mauryan imperial occupation or public works construction which may be associated with the phrase 'Mauryan period', and which may unduly bias the interpretation of the data.

5.3.1 Mauryan Structures at Lumbini

As mentioned in Chapter Four, the Mauryan period is generally thought to mark a significant phase in the development of the site, with the construction of numerous brick-built *stupas*, a brick-built *vihara*, the first two brick-built phases of the Maya Devi Temple, and the Asokan pillar. These identifications are all based on previous excavations that have been poorly recorded and published, in most cases leaving no plans or photographs and no mention of how the Mauryan *stupas* and *vihara* were assigned to this period. The only structure that had been scientifically dated to this period was a single phase of the Maya Devi Temple which had been presumed by the excavators of the JBF to represent the earliest brick-built phase. As most of the monuments at Lumbini have been reconstructed using brick-bat from the rubble at the site, it is impossible to accurately date these structures. Until the 2011-2013 excavations therefore, the only datable structures for the Mauryan

period were the Asokan pillar and what is now known to be an intermediate phase of the Maya Devi Temple, reaffirming the association of Mauryan period occupation with stone and brick.

Analysis of the results of the 2011-2013 excavations give a slightly more varied view of the Mauryan period structures at Lumbini. In this recent methodology, structures were identified as belonging to the Mauryan period (Period IV of this discussion) based on the use of Radiocarbon, OSL and TL dating, rather than the list of Mauryan markers described above. The discovery of a series of wall slots, kerbs, and postholes from Periods II and III below the foundation of the Period IV (Mauryan period) brick phase of the Temple demonstrates continuity in the delineation of sacred space through the Mauryan horizon. There is a similar sequence of postholes and wall slots on the same footprint beneath the brick walls of the monastery complex in the Sacred Garden. These continuities reveal that construction in Period IV (Mauryan period) was not limited to brick and stone, but continued a tradition of timber and wattle-and-daub construction on the same alignments as earlier, pre-existing structures.

The brick-built foundations of the Maya Devi Temple identified by the JBF were referred to in the report of that excavation as Mauryan, but very little was known about the architecture of the building, and as no evidence of a brick superstructure for this phase of the Temple could be identified, the JBF suggested that it must have been levelled in a later phase of construction (Uesaka 2011: 108). However, the discovery during the 2011-2013 excavations of postholes cut into brick foundations, and terracotta tile and wall plaster within the upper levels of the Period IV (Mauryan period) structure suggests that this phase of the Temple had a timber superstructure. The arrangement of the postholes indicates that the Period IV Temple was built directly over the earlier Period III brick platform, and that contrary to preconceived notions about Mauryan period brick and stone architecture, the Period IV Temple was supported by timber posts and roofed with terracotta tiles (Figure 5.1). This phase will be explored in more detail later in the chapter when discussing evidence of early Buddhism at Lumbini. Within the Village Mound and Sacred Garden areas, Period IV occupation also continued on directly from Periods II and III, and a series of rammed earth and brick-bat structural platforms, timber postholes, wall-slots, and terracotta tiles have all been scientifically dated to this period.

Although the associated contexts of Period IV have been scientifically dated to the Mauryan period, it is worth highlighting again here that the Asokan pillar represents the only indisputable evidence of Mauryan imperial public-works construction identified so far at Lumbini (Figure 5.2). The pillar, and its inscription marking Lumbini as the birthplace of the Buddha, is one of three known Asokan pillars in the Nepal Terai region. The other examples were found at Gotihawa (Figure 5.3), thought to mark

the site where the Krakucchanda Buddha achieved Nirvana, and at Niglihawa Sagar (Figure 5.4), thought to mark the birthplace of Kanakamuni Buddha (Mitra 1972: 229). Chakrabarti and others have suggested that these pillars mark a part of the routeway from the Mauryan capital at Pataliputra to Lumbini (2010: 24). It is important to note that whilst the pillars in the Nepal Terai are evidence of Mauryan infrastructure, they should not be viewed as territorial markers or merely as symbols of imperial power, but should be studied in their regional and historical contexts as indicators of the local social and cultural identity of these sites (Ray 2012: 70; Chakrabarti 2010: 32). The significance of this routeway and its implications as an imperial infrastructure and pilgrimage route will be discussed in Chapter Seven.

Almost all of the new archaeological evidence of Period IV (Mauryan period) structures from Lumbini demonstrate continuation of, or possible reconstruction and expansion of existing structures. The brick-built platform of the Period III Maya Devi Temple was reused, with postholes cut into the foundations and Period II and III material re-used as post packing. This evidence stands in contrast to the commonly held belief that the Mauryan period is represented by a brick and stone horizon. The assumption by the JBF that the Mauryan period Temple had a brick superstructure, despite there being no evidence to support this claim, is a good example of the biased link between brick-built architecture and the Mauryan period. Unfortunately, as excavations are rarely carried out below the brick horizons of Buddhist sites in South Asia there are very few examples available at present to compare to the evidence of Lumbini, but timber architecture is very rarely mentioned as a characteristic of Mauryan period architecture. At Katra Kesavadeva in Mathura, Thapar mentions that the Mauryan levels mark a transition from rudimentary timber structures to well-defined buildings of fired-brick, but this also occurs alongside all of the appurtenances of urban living as described above. It is possible therefore that Lumbini is unusual and represents an anomaly, as it is not an urban site, but a sacred site and a village. This possibility will be examined in Chapter Six, but at this point it is clear from the evidence of the 2011-2013 excavations that the defining characteristics of Mauryan period monuments need to be expanded to include timber structures.

5.3.2 Mauryan Ceramic Assemblage at Lumbini

As outlined above, in the typical ceramic assemblage of the Mauryan period (Late NBPW period) described by Roy, the Black-Slipped ware (BSW) and Black-and-Red ware (BRW) from the preceding phase should have completely disappeared, and there should be a noticeable decrease in the amount of fine NBPW, it being replaced with a coarser version and a coarse Grey Ware. In theory,

the forms of the vessels should also show a marked change from the tableware of the preceding phase to more utilitarian shapes such as nail-headed basins, rimless carinated *handis*, pans with loop or lug handles, and pear-shaped vases.

The ceramic assemblage from Period IV of the 2011-2013 excavations at Lumbini, corresponding to the Mauryan period, does not fit in with Roy's model of a Mauryan period (or Late NBPW) ceramic assemblage. There is a decrease in the amount of BSW and Cord-Imprinted Ware from the preceding phase, and it is the first time that NBPW makes an appearance in the sequence (Figure 5.5). Within the Maya Devi Temple, the NBPW makes up only 1.1% of the ceramic assemblage from Period IV and even less at the Village Mound with only 0.1% of the total assemblage. The BSW that was supposed to have disappeared has decreased from the preceding Period III, but still makes up 5% of the total assemblage from the Temple and 3.6% from the Village Mound. The coarse NBPW and Grey Ware that Roy describes as a characteristic of the Mauryan assemblage has not been identified at Lumbini. This may be due in part to the varied fabric and colours of the later NBPW that Roy and others have described. The identification of NBPW at Lumbini was based on the fine NBPW, as this is the most typical description of this ware. Another factor in this divergence in the ceramic assemblage from Lumbini is the identification of a new ware, Proto-Northern Black Polished Ware. This ceramic ware was identified as a separate ware by Giovanni Verardi in his excavations at Gotihawa in the Nepal Terai. As mentioned in Chapter Four, this ware is thought to represent the transitional phase from BSW to NBPW and can be identified through the lustrous black surface with red spots, an error in the firing process (Verardi 2007: 248). This ware was identified at Lumbini both in Period II and reaching its apogee in Period III. The identification of P-NBPW may in part account for the low count of NBPW at Lumbini as further investigation has shown that in the past, this ceramic has been identified as NBPW (see Pradlahpur). Another possible reason for the low numbers of NBPW and the relatively high numbers of BSW still present in Period IV may be due to the past identification of BSW as later NBPW. In the course of research for this thesis, it has been observed that at both national and regional museums in Nepal, BSW and Grey Ware are often labelled as NBPW.

A further observation in the course of research into Mauryan markers in the ceramic assemblage at Lumbini, apart from the broad definition of NBPW, is an over emphasis on the importance of the identification of NBPW. Due to problems with different excavation methodologies, as described in Chapter Three, it is difficult to determine the exact amount of NBPW found at many 'key' Mauryan sites from which these markers were derived, but it is evident that at Lumbini, NBPW was limited. In a 1996 publication, T.N. Mishra mentions finding both monochrome and bichrome NBPW in the

Maya Devi Temple. The monochrome NBPW is of silver and black colours but the bichrome variety “has a black shade intersected by two ochre-coloured lines” (1996: 44). There is no mention of the associated artefacts, quantity of sherds, or in fact the levels in which they were found, once again highlighting the problems with the recording and publication of the previous excavations at Lumbini. The limited number of NBPW found during the 2011-2013 excavations may again be due in part to the nature of the site, as it is not an urban site, but both a sacred site and a village. This also demonstrates a considerable flaw in the use of elite items such as NBPW as chronological indicators, since elite items are by definition not representative of all sites. The NBPW from Lumbini can therefore tell us very little about the Mauryan period at this site.

Perhaps what is more interesting about the ceramic assemblage from Lumbini is the way in which ‘localised’ ceramic wares such as Cord-Imprinted Ware (CIW) were still present, albeit in a later variant in Period IV (Mauryan period). Verardi has described the cord impressions of this new variant of CIW as deliberate decoration rather than the incidental result of technical application (2007: 250). At Lumbini the CIW of Period IV has a more uniform and sharper pattern to the cord impressions than in earlier phases (Figure 5.6), supporting Verardi’s notion that it represents a shift in the production technique. What is most interesting about this shift in Period IV is the continuity of the design and aesthetic of a localised ceramic ware in spite of observable changes in production technology. That is, as the site expanded and presumably came under Mauryan control during Period IV, CIW was not replaced by another ware, but adapted to the changing technology, in this case use of the wheel, and persisted, only falling from 9.3% to 6.4% of the total assemblage in the Maya Devi Temple between Period III and Period IV respectively.

As mentioned above, Roy has described the forms of the Mauryan period ceramic assemblage (or Late NBPW assemblage) as moving away from the tableware such as the *thalis* of the previous phase (ca. sixth-third century BCE.) towards more utilitarian shapes such as pear-shaped vessels, nail-headed, rimless carinated *handis*, and pans with loop or lug handles. When comparing the forms from Period III (ca. eighth-third century BCE) and Period IV across the Village Mound, Sacred Garden, and Temple at Lumbini, no such trend exists (Figures 5.7; 5.8). As can be seen in figure 5.8, the *thali* form remains very strong in Period IV and there is an increase in the open bowl form. There are some increases in the production of storage jars in Period IV, and especially in the globular jar form which might be akin to the pear-shaped vessels described by Roy and others.

The conclusion of this assessment must again be that the results from Lumbini do not match up with the descriptions of ‘typical’ Mauryan/Late NBPW periods at other sites in the Ganga Plain. Unfortunately, the majority of excavation reports relating to the region, particularly from the ASI, fail

to publish exact numbers of sherds or even the percentages for the ceramic assemblages, making inter-site comparisons problematic. At this point however, the data indicates a strong local and regional influence in the ceramic assemblage at Lumbini in Period IV, the Mauryan period, rather than the influence of a state sponsored or imperial presence. The issue of whether this is unique to Lumbini or symptomatic of a flawed model will be explored in Chapter Six by comparing the evidence from Lumbini with the published evidence of the five alternative case study sites.

5.3.3 Mauryan Artefacts and Materials at Lumbini

As described in Chapter Four relatively few artefacts were recovered from the 2011-2013 excavations at Lumbini. Over the course of three seasons nearly 200,000 sherds of pottery were catalogued, but only a few fragmentary artefacts, none of which could be dated with certainty to the Mauryan period. Mishra mentions finding some silver punch-marked coins and early copper cast coins with a four-spoke wheel design from the excavations at the Temple, but there is no description of the contexts in which they were found (1996: 44). He writes that as the site is “a place of worship and a living area for the monks, it is but natural that the number of antiquities found from the area was very small, still over a hundred antiquities were found” (ibid.: 46). He then goes on to list just eight antiquities he deems to be “the only important antiquities” (ibid). Of these eight antiquities, only the NBPW was earlier than the Kushan period (ca. first-fifth century CE). From the 2011-2013 excavations there were none of the punch-marked, un-inscribed coins, human or terracotta figurines that are apparently typical of the Mauryan period. Whether the absence of artefacts is due to the small size of trenches required by the excavation methodology, a theory undermined somewhat by the high numbers of ceramics, or whether it is due to the nature of the site itself, it is clear that the usual indicators of Mauryan period occupation are not particularly useful for identifying Mauryan period occupation at Lumbini. Although it must be considered as negative evidence, this absence of artefacts might provide interesting insights into the nature of the site.

One of the most significant categories of finds from the Mauryan phase at Lumbini was the corpus of architectural fragments of lime plaster, terracotta tiles, mortar, and bricks. The distinct large bricks that made up the kerb in the Period III phase of the Maya Devi Temple (Figure 5.9) were produced locally and indicate a certain level of knowledge of brick manufacture, and a significant investment in the delineation of this space, as this is the only example of brick architecture at Lumbini from this period. All of the other structures found at Lumbini from this phase have been timber and wattle-and-daub. The bricks from the Period IV Temple are nearly half the size of the preceding phase, and

although they still use straw as a temper they demonstrate a higher firing temperature (Figure 5.10). There is a lot of literature about the use of brick size in determining the chronology of structures in South Asia, even in present day excavations (see Fogelin 2007 and Mishra 1996). Pre-Mauryan bricks are generally assumed to be the largest, diminishing in size through every dynastic horizon. At Lumbini, T.N. Mishra noted that the bricks from the Mauryan period are thicker, with large rice husk inclusions, and are better fired than the preceding phase of bricks (1996: 39). However, at nearby Gotihawa, Verardi describes the bricks of the Mauryan period *stupa* as being square, rectangular, triangular, and trapezoidal in shape and their size being extremely variable within each class, thus showing that there was no standard in size or shape in the bricks (2007: 115. See also Bailiff et al. 2013; Stark et al. 2006 on the use of OSL dating of brick monuments in South Asia). Mishra also noted that the Mauryan period bricks from Lumbini were red in colour, compared to the later Sunga period bricks which were yellow. This is in contrast to the conservation report from the 2011-2013 analysis on the Maya Devi Temple which describes the Mauryan period bricks as having a yellow patina (Meucci 2013: 27). Further analysis has shown that the external surfaces of the Mauryan period masonry were finished with a white lime plaster which was likely painted and that the yellow patina may have served as a primer to prepare the surface for painting, since the layer of clay reduces the absorption of the binder and helps the paint colour retain its brightness and tone (ibid.). Both the Period III (pre-Mauryan period) and Period IV (Mauryan period) bricks from Lumbini therefore have much to reveal about the aesthetics of the early phases of the Maya Devi Temple, from the earliest timber railing to the simple, yet significant brick kerb and platform of Period III, and through to the brick and timber Period IV structure with its yellow patina and white lime plaster. Each phase represents a larger investment into the delineation and demarcation of this space, which will be discussed further below in reference to the early Buddhist markers at Lumbini. It is clear from this that there is little or no evidence of standardisation in the brickwork, a point in agreement with Verardi's analysis of Gotihawa, and less than expected in the materials and construction of buildings themselves than might be assumed from the current body of literature on Mauryan period architecture. It is interesting to note however the painted plaster decoration within the wattle-and-daub temple, perhaps as an alternative to a monumental brick structure.

The interlocking terracotta tiles from the Period IV contexts in both the Maya Devi Temple and the Sacred Garden also provide evidence of this local investment in the structures in the Sacred Garden at Lumbini. The tiles, as described in Chapter Four, demonstrate interlocking ridges and finger-marked grooves, and would appear to be locally produced. Comparison of tiles is problematic however, as there are very few examples of terracotta tiles dated to the Mauryan period. Mitra mentions them from her excavations at Tilaurakot, describing them as indifferently baked with a

profuse quantity of rice husk as temper (1972: 155). She describes the same finger marks and interlocking ridges as seen in the examples from Lumbini, and roughly dates the associated layer to the third century BCE (*ibid.*: 15). These same tiles have also been recorded from the 2013 and 2014 excavations of the rampart at Tilaurakot as part of Phase 2 of the Durham-led UNESCO project in the Greater Lumbini area (Figure 5.11). Radiocarbon and OSL samples were taken from these contexts for dating, and are currently under analysis (Coningham and Acharya 2014). The earliest known terracotta tiles have been found at the sites of Jaderua and Tripuri in Madhya Pradesh, dating to the fifth-fourth centuries BCE, but no additional information about the contexts in which they were found is available (Ghosh 1989: 295). At the sites of Champa and Rajghat they occur in levels dated to the third-second centuries BCE and slightly later at the sites of Kausambi and Sonkh dating from the second century BCE to the second century CE (*ibid.*). Terracotta roof tiles have also been found in association with wooden posts at the circular temple at Bairat, possibly attributable to the Mauryan period (Sahni 1937: 28). Unfortunately, there is very little information available about the use of terracotta roof tiles in the Mauryan period, which may in part be due to the excavation methods employed at these sites over the past century, i.e. not sieving; the reconstruction and conservation of monuments and sites; and the over emphasis of brick and stone in the Mauryan period, which has meant that terracotta tiles may have been tossed aside or unpublished in excavation reports.

There is even less written about the use of lime plaster in Mauryan period structures, and nothing written about the pigments and paints used on the plaster. There is evidence for the use of lime mortar at the Bronze Age site of Harappa, but it is primarily used on floors and around drains (*ibid.*). There is a mention of lime plaster from excavations at Kausambi, but as with the terracotta tiles, there is very little information available regarding the context or dating of the plaster. As mentioned above, Sahni reports finding lime plaster on the circular temple at Bairat, and this is particularly interesting as it is also found in context with terracotta roof tiles and timber posts (*ibid.*). Sahni found fragments of burnt plaster with fluting impressions upon them, leading him to believe that the wooden pillars were decorated with vertical fluting (*ibid.*; Piggot 1943: 4).

The examples of lime plaster recovered from the 2011-2013 excavations at Lumbini can provide a more complete picture of the use of this material in a structure of this period. More than 100 fragments of plaster were recovered from Period IV contexts in several trenches within the Temple at Lumbini. Analysis by the conservation team revealed that the composition of the lime plaster differed greatly to that of the mud mortar used in between the bricks (Meucci 2013: 28). Some fragments of plaster showed signs of having a fine finish with traces of black and red pigments on

the external surface, indicating that it was likely painted (ibid.). Although further work is obviously necessary, it is now clear that the recorded architectural styles of the Mauryan period must be expanded to take account of this evidence of alternative materials, and of the use of plaster and colours.

5.3.4 Summary of Mauryan Markers at Lumbini

This section has shown that aside from the Asokan pillar, the ‘typical’ markers of the Mauryan or Late NBPW period are not useful in identifying and defining this period in the archaeological record at Lumbini. All of the structures, artefacts, and architectural fragments found during the 2011-2013 excavations were dated using OSL and Radiocarbon samples taken from associated contexts. Using the typical indicators alone, it would be very difficult to find evidence of either the Mauryan Empire or indeed of any Mauryan period occupation at Lumbini. The amount of NBPW was relatively scarce and the ceramic assemblage as a whole did not conform to the ‘typical’ assemblage described by Roy and others (See Mitra). *Thalis* continued to be the dominant form in this period and localised ceramic traditions such as Cord-Imprinted Ware were adapted to technological advances. The structures revealed direct continuity in building materials, techniques, and delineation of space from Period III, representative of a pre-Mauryan period occupation, straight through the Mauryan horizon, with an early timber railing being replaced by a brick kerb and platform on the same footprint, and later by a wattle-and-daub structure occupying the same area and alignment. The terracotta tiles and fragments of lime plaster found in the Period IV Maya Devi Temple provide further evidence of the local investment in the building of this structure as well as helping to provide a more complete picture of the appearance of the Temple in this phase. This is all in contrast to the monumental architecture that archaeologists have come to associate with the Mauryan period. The perceived link between the Mauryan Empire (especially Asoka) and monumental architecture at the site is so intrinsic that scholars such as Harry Falk have asserted that Lumbini “initially had nothing at all until Asoka provided the site with relics and a pillar...” (2012: 207). The analysis of the materials and ceramics of the 2011-2013 excavations and the re-assessment of earlier excavations as part of this thesis demonstrates that this assertion is unfounded, and that there is a continuous archaeological sequence running from the Late Chalcolithic through the Mauryan horizon and into later periods. The ‘typical’ Mauryan cultural markers inferred from previous excavations of this site and others now appear to be inapplicable to Lumbini, and the inter-site analysis of Chapter Six will establish whether Lumbini is unique in this respect, or whether these definitions of Mauryan period occupation are, in fact, flawed.

Having established this continuity of artefacts, spaces, structures and architecture through the 'Mauryan Horizon' into Period IV, the Mauryan period, the next issue that must be dealt with in this chapter is whether 'typical' Buddhist markers may be identified in this sequence.

5.4 Buddhist Markers at Lumbini

As has now been well established, Buddhism is generally identified through the architectural, sculptural, iconographic, and epigraphical remains in the archaeological record, in congruence with the textual sources. This is how the archaeology of most world religions has been studied—by the identification of religious or ritual sites (shrines, churches, temples, synagogues, mosques, etc.) or through burial evidence (Insoll 2004: 22). However, as can be seen in the archaeology of Buddhism, this methodology neglects the quotidian aspects of religion, the practice and the way in which it structures the lives of those who adhere to it (ibid.). This is particularly true for the study of 'world religions' or those based on a textual tradition as the texts provide evidence of the way in which the religion was 'meant' to be practiced, and requires fewer inferences. As described in Chapters One and Three, this methodology is slowly changing in archaeology as scholars such as Timothy Insoll have expanded upon ideas that religion has a central place in the way in which people structure their lives, influencing their diet, social organisation, subsistence, economy, technology etc. (2004: 23). For example, in his study of the archaeology of Islam, Insoll looks at both the structure of the mosques and the layout of the domestic environment; the burials and funerary monuments; examines the faunal assemblages for evidence of diet; and finally looks at the community as a whole (2001: 124). Whilst, he recognises that Islam is not homogenous, but shows considerable regionality, the way in which he has looked for religion in the archaeological record is particularly significant. As described throughout this thesis, the identification of Buddhism, and particularly early Buddhism, in the archaeological record has been based almost entirely on the monumental. Recent textual and archaeological studies have looked at the economic and administrative roles of monasteries and monks, but the idea that Buddhism was primarily a monastic tradition, and that therefore its ritual identity did not extend significantly into the everyday lives of the laity (Shaw 2013: 88) has affected the way in which Buddhism has been studied. As the 2011-2013 excavations were undertaken at both secular (the Village Mound) and sacred (Sacred Garden and Temple) areas, the site presents a good case study for trying to identify Buddhism in the daily life of the laity as well as in monastic life.

As described in Chapter Three, Buddhist sites are identified through the presence of three main types of monuments: *stupas*, *grihas*, and *viharas* (Coningham 2001: 70). These monuments can be

further subdivided into many different sub-units but the one that is particularly relevant to Lumbini is the *bodhi-griha* (the Bodhi tree sanctuary). Archaeologists have gone so far as to say that one or all of these monuments should be present at a Buddhist site (Chakrabarti 1995: 192; Coningham 2001: 71). These markers are tied up in the hegemony of the textual narrative for the nature of early Buddhism, the monumentality of brick and stone art and architecture, and the intrinsic scholarly link between early Buddhism and the Mauryan Empire. As discussed in Chapter Three, the identification of Lumbini was based on the presence of the Asokan pillar, the monumental architecture and sculpture, and the description of the site in the Buddhist texts and Chinese pilgrims' accounts, all of which date to the Mauryan period or later.

5.4.1 Buddhist Structures at Lumbini

The difficulty in accurately dating the surface structures at Lumbini has already been discussed in Chapter Four, but using the accepted typology of *stupas*, *viharas*, and *grihas* as markers of Buddhism, it is easy to identify the Buddhist structures at the site. The *stupas*, as the most resilient of Buddhist monuments, can be defined as a mound of brick, stone, or earth enshrining a relic or marking a sacred place (Coningham 2001: 72; Bidari 2002: 101). Lumbini has numerous *stupas* which were built between the Mauryan period and the present, but which cannot now be accurately dated either by relative sequencing or scientifically because of the unrecorded reconstructions which have occurred in the last century (Figure 5.12). Most of the monuments appear to have been votive, built by pilgrims and monks for centuries, although one *stupa* (S-6) has in past excavations been identified as being a *saririka stupa*, containing the corporeal relics of the Buddha (Coningham and Tremblay 2013: 79; Rijal 1979: 13). This *stupa* is presumed to be from the Mauryan period, as it has a square foundation, and the base of the *stupa* contained the lid of a cylindrical gold casket, in association with some charred human bones and other ritual offerings (Coningham and Tremblay 2013: 82). The dating of this *stupa* is disputable however as Rijal does not provide any other evidence of its Mauryan construction and it was heavily disturbed in the excavations of Kaiser Shumsher J.B. Rana in the 1930s (ibid.). Rijal also mentions two more Mauryan *stupas* (1979: 13) (S-3 and S-4) and in his 1996 report Mishra describes another large Mauryan *stupa* (42, S-30 on the Bidari Plan) within the Sacred Garden, but in both cases no evidence was provided for the dating of these structures (Coningham and Tremblay 2013: 82). As can be seen in Bidari's plan, there are numerous other *stupas* within the Sacred Garden with foundations presumably dating to the Sunga, Kushan, Gupta, and Medieval periods. As described in Chapter Four, new monuments were built in each phase, and older structures expanded and improved upon. Again, it is difficult to identify these phases when

looking at the current site as they have all been re-constructed using the same recycled materials and now exhibit a uniformity that makes the site appear as if every monument dates to a single period of construction.

The second type of Buddhist monument or 'marker' is the *viharas*, three of which have been identified at Lumbini. *Viharas*, or monasteries, are the living and meditational places of monks and nuns and are often organised as a group of cells surrounding a central courtyard (ibid.: 78). In 1962 Debala Mitra first mentioned the *vihara* at Lumbini during her brief investigations of the site. She describes a quadrangular brick monastery with an array of cells on all four sides (1972: 197). During his excavations in the 1980s, Mishra excavated the brick-built *vihara* described by Mitra (V-2) that he dated to the Mauryan period. However as with the *stupas*, he did not mention how the structure was dated, and nor are there any plans or photographs of the excavations (Coningham and Tremblay 2013: 78). Two more brick *viharas* were uncovered in the same area of the Sacred Garden with various construction phases dating from the Mauryan period through to the Gupta, but once again this dating is based on fragmentary evidence (ibid.).

As described in Chapter Three, the third category of Buddhist structures that have been identified at Lumbini is the most nebulous—*chaitya grihas*. These structures have been described as sanctuaries and can be found in a variety of different shapes varying between apsidal, circular, and quadrilateral (Coningham 2001: 75). The general description being a hall with an object of worship, this could mean either an image of the Buddha, as at the site of Nagarjunakonda, or a *stupa* as found at Bairat (ibid.). The structure that has been identified as a *chaitya griha* at Lumbini is the Maya Devi Temple. The devotional object has changed over the centuries of reconstruction, but the delimited space has always remained the same. One notable absence in the discussion on Buddhist *chaitya grihas* is that of the *bodhi-griha*, the bodhi tree sanctuary. This type of monument has a very long and well documented history in South Asia in both inscriptions and sculpture, but it is notably absent from excavation reports of Buddhist sites (ibid.: 76). The implications for this neglect will be discussed below in relation to the findings of the 2011-2013 excavations in the Maya Devi Temple.

The Japanese Buddhist Federation excavations of the Temple in the 1990s led to the identification of the earliest brick-built phase datable to the Mauryan period. This structure has proved puzzling, as it was described as being a double walled structure, with an external pavement and internal floor of brick, as well as fifteen internal 'chambers'. All but one of these 'chambers' were thought to be filled almost to the top with rammed earth. Chamber 2 was instead filled with bricks and a large black stone was cemented in the top layer of bricks, and interpreted by the excavators to mark the actual birthplace of the Buddha (Uesaka 2001: 38). It was thought that Chamber 2 was then again filled up

with brick during a second phase of Mauryan period construction, burying the marker stone (ibid.: 39f). The Sunga period phase of construction at the Temple revealed that an exploratory pit had been dug into the brick fill of Chamber 2 possibly in order to confirm the position of the marker stone, but this was again filled with earth and brick-bat, and was sealed with four large pieces of sandstone, creating a new object of focus for the Temple. The JBF excavations then determined that there was a second phase of construction in the Sunga period in which a large brick structure was erected over the marker stones, presumably forming a *stupa* or a *chaitya* (ibid.: 56). As detailed in Chapter Four, the JBF reported a further major renovation of the Temple during the Kushan period, part of which included a large brick and earth platform which surrounded the 'Sunga' phase *chaitya*, and a new smaller platform and small square votive tower were built on to the new floor level directly above it (ibid.: 58). This construction once again changed and elaborated upon the object of worship, but the continuity of the placement of the *chaitya* remained important. The Gupta period construction of the Temple is very distinct as it represented a new architectural style which P.C Mukherji described as a seven-bayed *saptaratha* (1901: 35). Within the Temple this period saw the building of a new surface around the Kushan period *chaitya*, and which brought the entire platform up to the same height as the *chaitya* (Uesaka 2001: 60). Another small *chaitya* was built on top of this platform in highly decorated carved brick, and a stone sculptural image depicting the Birth of the Buddha (the nativity image) was mounted near the *chaitya*. Despite the site having fallen into relative obscurity some time after the fourteenth century CE, there is another phase of construction on the Temple in the nineteenth century. As described in Chapters Three and Four, when the site was rediscovered in the late nineteenth century, there was a small box-shaped structure sitting upon the mound (Fuhrer 1972: 28). Inside the structure one could descend down into the lower levels of the Gupta period structure that housed the stone nativity image of Maya Devi giving birth to the Buddha that served as the devotional object for both the contemporary Hindu occupants at the site (Figure 5.13), and the Gupta period Temple. During this long sequence of construction of the Maya Devi Temple, it is imperative to note that a key vertical line was maintained throughout, from the Mauryan period (or earlier) 'marker stone' through a series of votive and sacred structures. The object of worship changed in this *chaitya-griha*, but the sacred nature of the space remained consistent. The results of the 2011-2013 excavations support this continuity of sacred space, but push back the date into pre-Mauryan phases.

During the JBF excavations one archaeologist, Sri Kosh Prasad Acharya, representing the Department of Archaeology, Government of Nepal, had a different opinion about the 'chambers' in the Mauryan period phase of the Temple. Rather than 'chambers' filled with rammed earth, he hypothesised that these were baulks left between excavated and brick-filled foundation trenches. The hypothesis was

largely ignored at the time, but formed the basis for the 2011-2013 investigations in the Temple. Acharya's hypothesis proved correct and several of the old land surfaces were excavated, mainly focusing on Chamber C5, directly in front of the Marker stone (Figure 5.14) which, as described in Chapter Four, revealed a sequence of structures below the Period IV (Mauryan period) Temple, as detailed in Section 5.4.1 above (Coningham et al. 2013: 1108). Below the lowest pavement and brick kerb of this sequence was a series of six postholes marking the same spatial alignment as the later platform and kerb, demonstrating that the brick kerb had replaced a line of timber posts that had previously defined the space. Radiocarbon dates from the postholes placed the construction of this earliest phase between 799-546 BCE (ibid.: 1109)(Figure 5.15). This continuity in the delineation of space follows the same pattern as the later phases of the Temple, indicating that this area has been a delimited sacred space from at least Period II right through into the present (Figure 5.16 and 5.17). Using the 'typical' Buddhist markers as described in Chapter Three however, there is nothing found in these early levels that can be identified as 'Buddhist'. There are no sculptures, and there is no iconography, or any inscriptions; the architecture is not recognisable as a *stupa*, or *vihara*, or even a *griha* as defined above. However, thin-section micromorphology of the stratigraphy within the Temple has revealed that the centre of the early Temple structure was not roofed, but was an open area (Coningham et al. 2013: 1113). A recorded increase in fine organic materials with no increase in phytoliths suggests that additional organic material was culturally deposited within the centre, but not cultivated in its vicinity (ibid.). As mentioned above, one form of *griha* that is not often described in excavation reports of Buddhist sites is the *bodhi-griha* or 'Bodhi Sanctuary'. In the archaeological record, these types of structures are often represented as voids or open areas in the centre of shrines, as the original shrine would have been built around a living tree (Bandranayake 1974: 188). This type of structure has been identified at numerous archaeological sites in Sri Lanka and is a common feature of contemporary Sri Lanka Buddhist temples (ibid.: 161; Coningham 2001: 76) (Figure 5.18). There is epigraphical, sculptural, and iconographical evidence for the presence of this type of shrine in early Buddhism, with a third century CE inscription from the site of Nagajunakonda in the Deccan, regarding the donation of a *bodhi-griha*. In addition numerous sculptural depictions of the shrines have been found at some of the earliest known Buddhist sites, including Bharhut, Sanchi, Bodh Gaya, Mathura, Amaravati (Coomaraswamy 1930) and Pauni (Deo and Joshi 1972) (Figure 5.19), as well as the tree within a railing image being one of the most common icons depicted on ancient coins (Cunningham 1891; Pieper 1991; Bopearachchi and Pieper 1998; Bopearachchi 2006) (Figure 5.20). Having established both the precedent for the identification of this type of structure in the archaeological record (see Bandaranayake 1974) and provided sculptural evidence from Buddhist sites depicting garlanded and decorated trees often furnished with altars and

surrounded by tiled roofs (See Cunningham 1879: pl. XXIX-XXXI), it would seem that the earliest structure found in the 2011-2013 excavations at Lumbini could be interpreted as a *bodhi-griha*. The successive timber railing, brick kerb, and platforms show that there is continuity in the delineation of sacred space in the pre-Mauryan period and this space remained important in the redesign of the space in the Mauryan period, despite the substantial changes that occurred in the architecture of the Temple. The results of the thin-section micromorphology, the alignment of the postholes, and the lack of terracotta tiles recovered from the trenches from the centre of the Period IV Temple all indicate that the centre of this timber-built structure was left open as well.

Much has been written about the long history of tree shrines in South Asia, with some scholars suggesting that the ritual focus stretches back to the Neolithic period (Irwin 1973: 715). In addition, excavations have shown that structures ‘typically’ associated with Buddhism, such as the Kushan period apsidal temple at Sonkh, are not Buddhist at all, but are dedicated to the worship of *nagas* (Hartel 1993: 86). Recent work by H.P. Ray has also shown that the use of the apsidal form in a Hindu temple does not necessarily mean that it was originally a Buddhist shrine converted into a temple as previously believed. Archaeological evidence from numerous sites including Gudimallam in Andhra Pradesh provides evidence that even though the temple complex underwent several periods of construction, the Shiva *linga* enshrined as an object of worship in the sanctum remained unchanged from the earliest levels of the Temple (Ray 2010: 356). The sequence of structures within the Maya Devi Temple and the Sacred Garden at Lumbini therefore demonstrate a number of important points about the archaeology of Buddhism.

5.4.2 Identifying Buddhism in the Ceramic Assemblage at Lumbini

Following on from the discussion of Mauryan period ceramics above, the notion that certain ceramic wares or forms may reflect the presence of Buddhism in the archaeological record is tenuous. Northern Black Polished Ware is often taken as an indicator of both the life time of the Buddha (sixth century BCE) and the expansion of Buddhism in the Mauryan period. Some archaeologists have gone so far as to suggest that the spread of NBPW into the Ganga-Yamuna Doab, Central India, the Deccan and South India is attributed to the movements of the Buddhist monks from the fourth century BCE onwards (Deo and Joshi 1972: 32). The archaeological evidence provided for this link is the presence of NBPW sherds in the early levels of the *stupa* mound at Pauni and similar sites (ibid.). Issues surrounding the dates of NBPW and its use as a Mauryan indicator make this concurrence of the spread of Buddhism and NBPW outside the Ganga Plain difficult. As mentioned above, Lumbini

presents a good opportunity to examine the difference in the ceramic assemblage between the secular Village Mound and Heli-pad sites and the Sacred Garden and Temple.

Whilst it is well established that it is not possible to identify any 'Buddhist ceramics', it is possible to look at the distribution of wares and forms across the site for any significant variations between the secular and sacred areas. A period by period comparison of the wares between the three different areas of excavation shows that there is very little variation in the percentages of wares between the Sacred Garden, the Temple and the Village Mound/Heli-pad. As can be seen in Figure 5.21 the Period III ratios of Red Ware, Black-slipped Ware, Proto-Northern Black Polished Ware, and Cord-Imprinted Ware are fairly consistent across the three areas. The same can be said for the ceramics of Period IV (Figure 5.22), where there is a very slightly higher ratio of CIW, BSW, and P-NBPW in the Temple compared to the Sacred Garden and Village Mound/Heli-pad. The results of the Period V (Sunga) and Period VI (Kushan) comparisons (Figures 5.23 and 5.24) are also quite consistent, but this may be due in part to the smaller sample size in these periods. This analysis shows that there is no significant variation in the types of wares found in the sacred areas of the site and the secular. As the sequence from Gotihawa is roughly comparable with Lumbini, and the site itself has both an Asokan pillar and sacred area around the *stupa*, the ceramic assemblages were compared, to look for similarities in the distribution of the wares throughout the pre-Mauryan and Mauryan periods, as that was all the data that was available from Gotihawa. Only the ceramics from the Sacred Garden and Maya Devi Temple were used in this comparison as the purpose of this exercise was to see if there were any similarities in the assemblages from sacred areas of the site. The results proved to be inconclusive (Figures 5.25 and 5.26), since there were almost no similarities between the two sites in either the pre-Mauryan periods or during the Mauryan period.

A period by period comparison of the distribution of the ceramic forms is slightly harder to interpret, as there is insufficient data for all the different periods across the site, and therefore only Period III and Period IV were compared. In Period III (Figure 5.27) there is a notable difference between the ratio of storage jars, vases, closed mouth vessels, and *thalis* from the Sacred Garden, compared to those from the Temple and Village Mound/Heli-pad which are quite similar. This discrepancy might be attributed to the small sample size of the Sacred Garden assemblage from this period. In Period IV (Figure 5.28), there seems to be a higher ratio of *thali* forms in the Temple than across the rest of the site, but there are new forms, including the open bowl and oil lamp, introduced at the Village Mound/Helipad, that are not present within the Sacred Garden or Temple. It is interesting to note that whilst it is not possible to make a cross site comparison for the later period such as the Gupta and Post-Gupta periods, it is possible to see that at the Village Mound/Helipad there is a marked

increase in the production of oil lamps and their larger variant, V-shaped bowls. It is possible that the increase in the production of oil lamps at the Village Mound highlights the link between the secular and the sacred. The fact that it is not possible to see any significant difference between the assemblages of wares from the three different areas of the site is worth noting, and the fact that localised ceramic traditions such as CIW are found across the site highlights the regional and localised investment in the site, rather than a demonstrably Mauryan or Mauryan imperial influence.

5.4.3 Buddhist Artefacts at Lumbini

As described in Chapter Four and above in Section 5.3.3, there were no artefacts from the 2011-2013 excavations that were characteristic of either the Mauryan period or indicative of Buddhism. No iconography or sculpture was found from any period, let alone from the Mauryan period. This absence may in part be due to the numerous destructive archaeological activities at the site over the past century which has made it difficult to investigate the site from the Mauryan period onwards. Publications and reports of past excavations at the site are sparse, with only the 'important antiquities' being published. However, there have been several sculptural fragments found that confirm Lumbini's Buddhist history. When Debala Mitra visited Lumbini in the 1960s she was disappointed with the preservation of the site and was critical of the levelling and reconstruction techniques used in the excavations of the 1930s (1972: 198). However, she provides the only descriptions of several stone, terracotta, and bronze figures that were found during the 1933-34 excavations. When she visited Lumbini, these antiquities were housed in the kitchen of the Buddhist monk of the Lumbini Dharmaodaya Committee, who had no knowledge about their previous location (ibid.: 197). The finds included two fragments of stone figures depicting the Buddha stylistically ascribed to the Kushan period; two fragmentary stone slabs depicting the Eight Great Miracles and the Miracle of Sravasti; and several stone images depicting various Bodhisattvas, stylistically ascribed to the eighth-tenth centuries CE (ibid.: 200). Mitra also describes several terracotta figures and architectural fragments of Buddha and Bodhisattva figures, as well as monks and devotees, most of which are stylistically ascribable to the Gupta period. Finally, Mitra notes two bronze figures, one a Bodhisattva, and the other a devotee or donor, thought to date to the Kushan period (ibid.: 201). These antiquities described by Mitra have since disappeared from Lumbini. During the JBF excavations in the 1990s, at least two more sculptures were found, one a terracotta scene dating to the Kushan period depicting Prince Siddhartha with Yasodara sleeping on the royal bed and Siddhartha preparing to leave the bed for Mahabhiniskramana, and the other a stone image of the Buddha in Bhumi-Sparsa Mudra dating to the Gupta period (Mishra 1996: 46). One of the

most important antiquities from Lumbini is the Nativity sculpture, re-discovered by P.C. Mukherji in the late nineteenth century. The bas relief depicts Maya Devi grasping a branch of a sal tree whilst giving birth to the infant Buddha (Siddhartha), in the company of her sister Prajapati, and the gods Brahman and Indra (1899). The material is thought to be red sandstone and likely dates to the Gupta period. This sculpture is particularly important as it has formed the ritual focus of the Maya Devi Temple from the Gupta period onwards, replacing the marker stone of the Mauryan period and the subsequent phases of *stupas* or *chaityas* built upon it to mark the spot. The nativity sculpture occupied the same location in the Gupta period Temple, highlighting both the continuity in the sacred space, but also the changing fashion for devotional objects. The contexts of these antiquities from Lumbini are unknown, and there is very little that can be said about them except to describe them and stylistically ascribe a date. The absence of any definitively 'Buddhist' finds as described in Chapter Three from the 2011-2013 excavations is hardly surprising considering the damage that the site has undergone in the last two centuries. It might also be argued that a more fundamental problem is the lack of identifiably 'Buddhist' markers applicable to artefactual assemblages, due perhaps to the paucity of pre-Mauryan and early Mauryan excavation data at Buddhist sites.

5.4.4 Summary of Buddhist Markers at Lumbini

Whilst art and architecture can be used to date later Buddhist phases, early Buddhism is very difficult to identify in the archaeological record, and it has not been possible to identify any artefactual evidence of early Buddhism from the 2011-2013 excavations. It is worth noting however that this absence of evidence is not evidence that Lumbini "initially had nothing at all until Asoka provided the site with relics and a pillar..." as Falk has argued (Falk 2012: 207). The excavations from the Village Mound and Heli-pad prove that there was a substantial community at Lumbini dating back to the Late Chalcolithic (thirteenth-twelfth century BCE) and results of the excavations in the Sacred Garden suggest that there was a monastic community present in Lumbini before the apparent arrival of Asoka in the third century BCE, as marked by the Asokan pillar and inscription.

The bias towards monumental brick and stone architecture at Buddhist sites is intrinsically linked with the idea of a 'Mauryan horizon' across South Asia. The results of the 2011-2013 excavations of the Maya Devi Temple have changed the singular perception of the brick-built Mauryan period Temple, and the evidence indicates that the Mauryan period Temple had brick foundations, but a timber superstructure with terracotta tiled roof and painted lime plaster walls. This structure was built upon an earlier brick platform and kerb, which in turn replaced an earlier timber structure

delineating the same space. The presence of this structure, the continuous marking of this space, and the fact that there is no evidence to suggest that the site was anything other than Buddhist, indicate the likely early Buddhist use of the site before the Mauryan period, though in a manner and style which has not previously been recognised at other Buddhist sites. This alone demonstrates the urgent need for a re-evaluation of early Buddhist markers. Even though the object of devotion has changed, the continuity of the sacred space within the Maya Devi Temple has remained more or less the same from these earliest phases through to the present. If the earliest structure was indeed a *bodhi-griha*, then the installation of the Marker Stone in the Mauryan period would have altered the focus of the temple, but not the area.

Throughout the subsequent phases of Temple construction the sanctum remained in the same place although the devotional objects changed from both Sunga and Kushan period *stupas* and *chatiyas*, to the Nativity image in the Gupta period. It is evident from examining the 'traditional Buddhist markers' at Lumbini, such as the sculpture and architecture, that from the Mauryan period to the Mediaeval period (post-Gupta) Lumbini was an important site for Buddhist pilgrimage. The Maya Devi Temple as well as the *stupas* and *viharas* in the Sacred Garden are palimpsests of design, having been expanded, elaborated, and reconstructed almost continuously for centuries. These excavations have helped to demonstrate the need for archaeologists to look beyond the monumental and investigate below the brick horizons at Buddhist sites. Even though the four major sites of pilgrimage from the Buddha's life (Lumbini, Bodh Gaya, Sarnath, Kushinagara) and many of the places in which the earliest Buddhist narratives are set (Rajgir, Kausambi, Sravasti, and Vaisali) have all been located and subjected to nearly a century of excavation, there are at present no distinct Buddhist remains datable to the pre-Mauryan period (Coningham 2001; Shaw 2013: 87). That is to say that although a number of Buddhist monuments are believed to have pre-Mauryan origins based on the textual sources, there is at present no scientifically dated evidence to support this narrative. This absence of archaeological evidence reflects the problems with excavation methodology in South Asia, the way in which we define 'Buddhist markers' in the archaeological record, and the general visibility of early Buddhism.

As described in Chapter Three there has been a recent push in archaeology to look at Buddhist sites as archaeological sites rather than monuments—applying a landscape approach (Coningham and Gunawardhana 2013; Shaw 2007; Hawkes 2009). In particular, these studies are helping develop the understanding of the roles of monasteries in the landscape, commerce and culture of the areas. However, many of these surveys and studies are still employing the same architectural typologies to identify Buddhist sites. During her survey around the site of Sanchi, Shaw documented thirty 'new'

Buddhist sites with her basic framework for assessing the new Buddhist remains provided by the architectural typologies at Sanchi (2009: 120). This typology included four different types of *stupas*: the Mauryan type, the post-Mauryan type, the Gupta and post-Gupta type, and the votive or ‘burial ad sanctos’ type (ibid.). Even in this archaeological methodology designed to look beyond the monumental, the same issue with the identification of early Buddhist sites remains, in that they are assumed to be intrinsically linked with the imperial. Others have already critiqued the way in which Buddhist sites are identified, and Coningham notes that “whilst such monuments are frequently identified during excavations, they represent only a fragment of Buddhist practice” (2001: 71). He provides the example of a *bhikkhuni* or ‘nun’ who might have lived in the Sri Lankan city of Anuradhapura, and whose small wattle-and-daub home would be very difficult to identify in the archaeological record (ibid.). At present there are very few alternatives to the way in which Buddhist sites are identified, and the brick and stone horizon of the Mauryan period remains hegemonic in identifying Buddhist remains. In part, this issue comes down to a lack of information and evidence for early Buddhism because of the reluctance of archaeologists to excavate below the brick horizon at Buddhist sites.

5.5 Conclusions

The objective of this chapter was to analyse the collated excavation data from Lumbini and to test the physical existence of the so-called ‘Mauryan Horizon’ using the markers of Mauryan and Buddhist archaeology identified in Chapter Three. The Asokan pillar and inscription at Lumbini mark the site’s importance to both early Buddhists and to the Mauryan Empire, making the site a good case study for the examination of both the archaeological signatures of the Mauryan period, as well as those of early Buddhism. The previous excavations at the site have made these investigations difficult because of the irreparable disturbance to the later phases in the Sacred Garden, but the bias towards brick-built architecture has also ensured that most of the archaeology below the brick horizon has remained intact. In addition, the extensive excavations of the Maya Devi Temple by the JBF in the 1990s has provided the opportunity to investigate the earliest levels, something that perhaps would not be allowed to happen at other sacred Buddhist sites. By excavating below the ‘Mauryan horizon’ at Lumbini it has been possible to recognise the continuities in both the structural and ceramic sequences running through this so-called ‘horizon’.

The results of the 2011-2013 excavations have shown that there is no sudden dynastic introduction of material culture and architecture at Lumbini in the Mauryan period, and that the ‘typical markers’

of the Mauryan period are difficult to see at Lumbini. This absence of 'typical' Mauryan material culture at Lumbini demonstrates that not only are these markers flawed, but that there might not be any standardised markers of the Mauryan period, as one may expect to see if the Empire was as territorially bound and centrally administered as it has been described in the past. As described above and in Chapter Three, there are numerous flaws in the use of these 'markers' in the first place, as most of them are not specific to the Mauryan period but are indicative of Early Historic urbanism in the Ganga Plain. The continuity in the material culture and structural phases between the pre-Mauryan Period III and Mauryan Period IV contexts analysed in this chapter suggest that the site is representative of a regional character, rather than an imperial or 'top down' influence. It is possible that Lumbini is a unique example of this and that other sites within the bounds of the Mauryan Empire are more homogenous, but the evidence from Lumbini seems to support both Romila Thapar's assertion that the Mauryan Empire did not attempt to enforce cultural uniformity (2012: 18), and Monica Smith's model of a loosely knit state. Chapter Six will examine five other sites, Gotihawa and Piprahawa/Ganwaria are found in the same region as Lumbini, Kausambi is in the core of the Ganga Plain and the Mauryan Empire, Taxila, near the north west fringes of the Empire, and Anuradhapura which is located outside the Empire in Sri Lanka. The same 'Mauryan markers' will be examined at each of the sites, as will any structures that have been ascribed to the Mauryan period, and the method by which they were dated.

The evidence from Lumbini has also demonstrated that the typical markers for Buddhism are not particularly useful in identifying early Buddhism in the archaeological record. It is evident from the palimpsest of monuments and design that Lumbini has been one of the most important sites of Buddhist pilgrimage for more than two millennia, but the excavations at Lumbini and the analysis of this thesis demonstrate that in spite of the evidence of ritual and religious continuity in the Maya Devi Temple it is not possible to identify early Buddhism at the site when reliant on what this thesis has now demonstrated to be a flawed methodology. As described above, the *stupas* and *vihara* that have in the past been identified as Mauryan cannot be reliably dated, as it is not clear from the records why they were identified as Mauryan. In most cases it seems to be reliant on a combination of bricks size, NBPW, and coinage, which is not specific to the Mauryan period. One major phase of construction of the Maya Devi Temple has been scientifically dated to the Mauryan period, but the structure in question is not an overtly 'Buddhist' monument.

It was suggested by the JBF that the Marker Stone was the focal point of the Mauryan period Temple, but the stone is not recognisably Buddhist, simply a stone which it has been hypothesised marked the exact place of the Buddha's birth. There is nothing about the architecture or decoration

of the Period IV (Mauryan period) Temple that could be considered inherently Buddhist as described in Chapter Three, but it is generally accepted by scholars that it is in fact a Buddhist monument. In comparison, the Period II-III pre-Mauryan phases of the Temple uncovered in the 2011-2013 excavations are similarly devoid of any markers of Buddhism aside from the hypothesised Bodhi tree which may have stood at the centre of the shrine, and yet there has been a considerable negative reaction by scholars to the suggestion that these pre-Mauryan structural phases represent the first Buddhist shrines at the site. Based on the analysis of this thesis it seems likely that these reactions are due to the hegemonic narrative linking Asoka to the spread of Buddhism, the primacy of textual and epigraphic sources in the study of early Buddhism, and the lack of comparable archaeological evidence for this period because of the unchallenged nature of the monumental Mauryan horizon.

The Period IV Temple is assumed to be Buddhist because of its association with the Asokan pillar and inscription, as well as the textual sources which all identify the site as 'Buddhist'. The continuity in the delineation of sacred space and building materials from the pre-Mauryan phases is significant, as is the fact that this same delimited space has remained sacred for two thousand years. Taken with the presence of the Asokan pillar, there is no evidence to suggest that any of the Period II, Period II, or the Period IV shrines were anything other than Buddhist, but as an alternative theory it is possible that the site, and indeed this particular space within the Temple, has been sacred to more than one religious group within a given period, as it is in the present day. For example, as described in Chapter Two and Three, when Lumbini was re-discovered in the late nineteenth century a Hindu shrine had been erected on top of the ruined Gupta period Maya Devi Temple, whilst the broken Gupta period stone relief of Maya Devi giving birth to the Buddha was being venerated as local deity Rupa Devi (Bidari 2002: 86). Although this interpretation is difficult to prove, it is worth consideration as an alternative theory.

Having examined the archaeological evidence from Lumbini it is evident that there is very little material culture that can be stylistically dated to the Mauryan period, or that can be directly attributable to the Mauryan Empire aside from the Asokan pillar. The structures and ceramic assemblages that could be scientifically dated to the Mauryan period have revealed a very different picture to that 'typically' expected at an important site with Mauryan period occupation. The Maya Devi Temple does not fit into the notion that secular and sacred architecture in the Mauryan period was brick-built and monumental. The continuities in the structural and artefactual record at Lumbini indicate that the site reflected a regional character, but it is necessary to compare the evidence of this site to other sites of a similar period to determine whether or not Lumbini represents an anomaly in the archaeological record, or whether these conclusions may be applied to the Mauryan

Empire as a whole. In the following chapter the available literature on excavations at Gotihawa (Nepal), Piprahawa/Ganwaria (India), Kausambi (India), Taxila (Pakistan), and Anuradhapura (Sri Lanka) have been examined in a similar manner to the data from Lumbini. These Early Historic and Buddhist sites fall within the Natal landscape, the Mauryan Empire, and beyond the limits of the Empire. This examination will highlight the way in which Buddhist sites and Mauryan period sites have been identified and dated in the archaeological record across the Subcontinent, further testing the archaeological and textual concept of the 'Mauryan Horizon'.



Figure 5.1. Digital reconstruction of Period V Maya Devi Temple. Image courtesy of Tom Fitton, University of York.



Figure 5.2. Asokan pillar in the Sacred Garden at Lumbini. Photo courtesy of Ira Block.



Figure 5.3. The Asokan pillar at Gotihawa in the Nepal Terai. Photo courtesy of Robin Coningham.



Figure 5.4. Asokan pillar at Niglihawa in the Nepal Terai. Photo courtesy of Basanta Bidari.

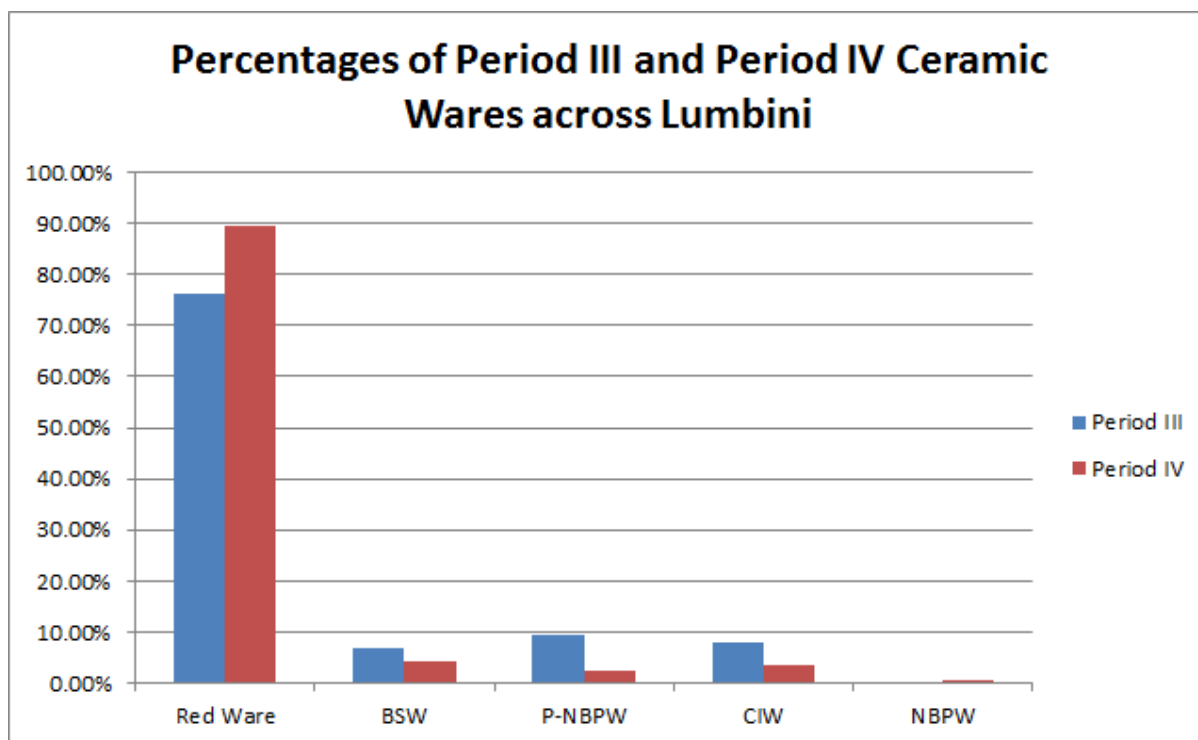


Figure 5.5. Graph depicting the changing percentage of ceramic wares from Period III to Period IV at Lumbini



Figure 5.6. Later variant of Cord-Imprinted Ware from Lumbini Monastery Trench 3, Period IV. Photo by author.

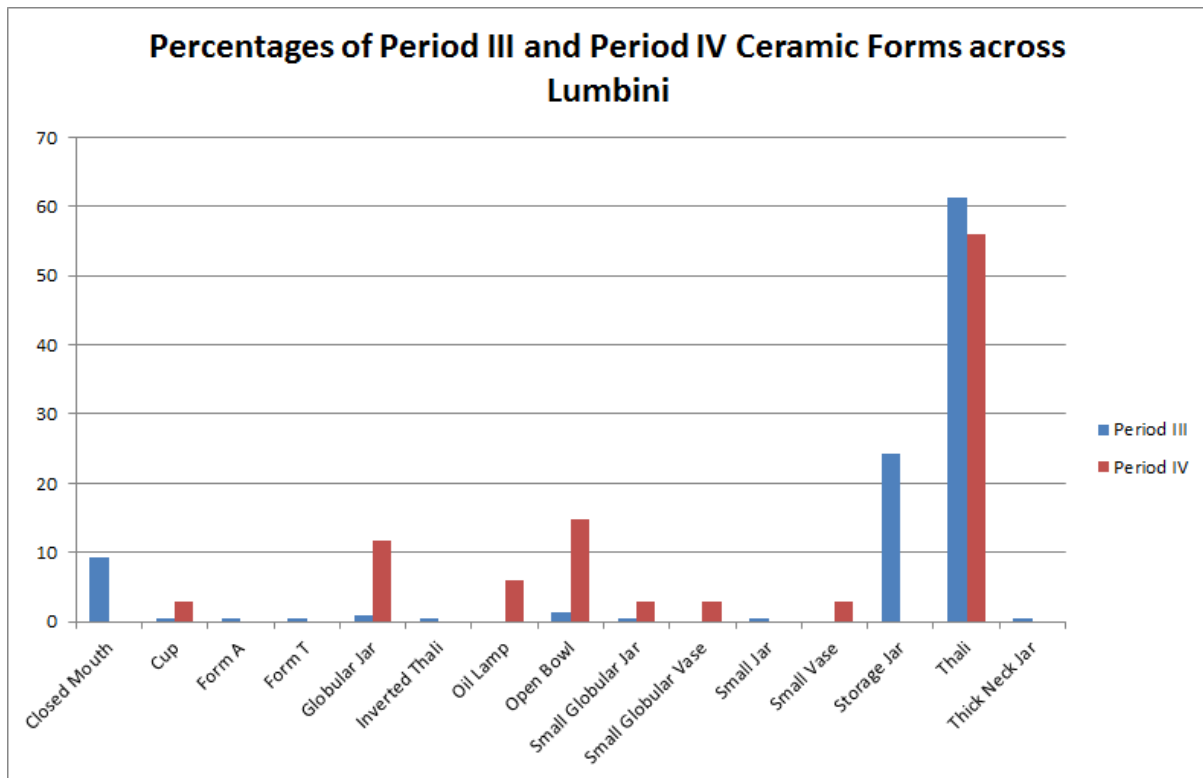


Figure 5.7. Graph depicting the percentage of different forms Lumbini from Period III and Period IV.

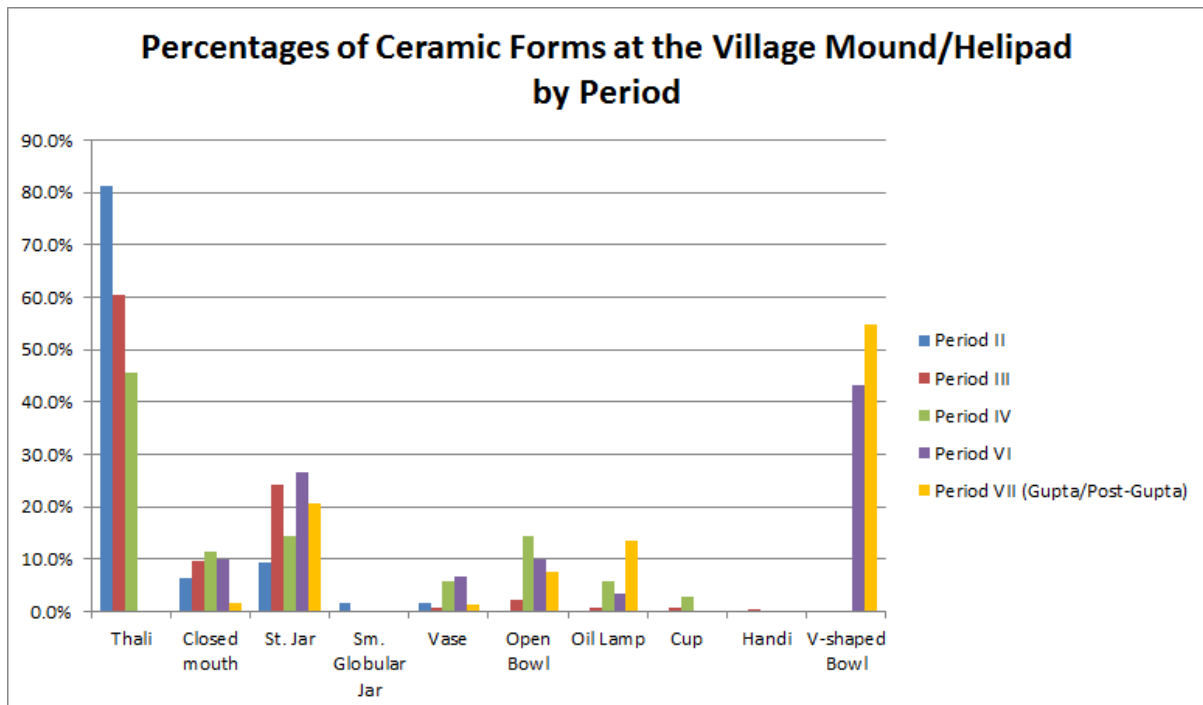


Figure 5.8. Graph depicting the percentages of ceramic forms by period at the Lumbini Village Mound and Lumbini Heli-pad.

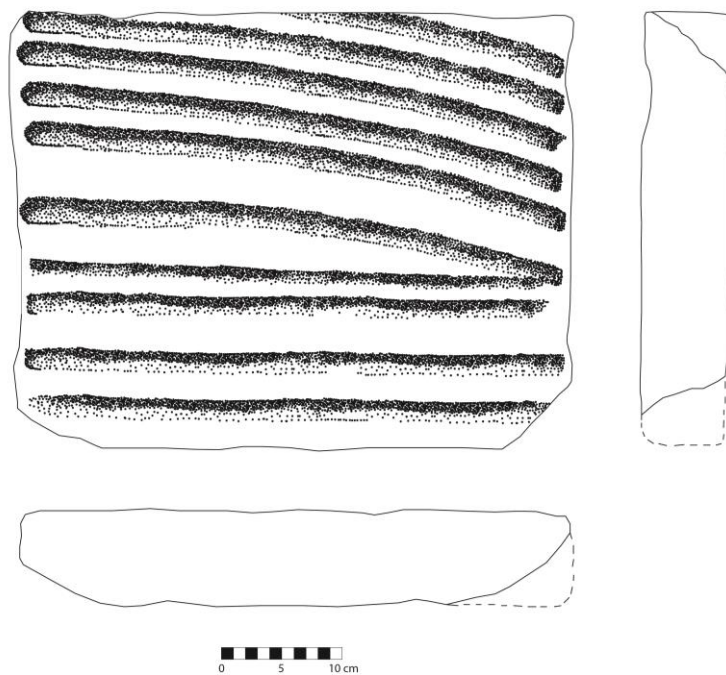


Figure 5.9. Brick from the Period III kerb in Trench c5b of the Maya Devi Temple. Drawing by Sofia Turk, Durham University.



Figure 5.10. Close-up of brick from the Period III kerb in Trench c5b of the Maya Devi Temple, showing the temper. Photo by author.



Figure 5.11. Photo of terracotta tile fragment from 2013 excavations at Tilaurakot in the Nepal Terai. Photo by author.

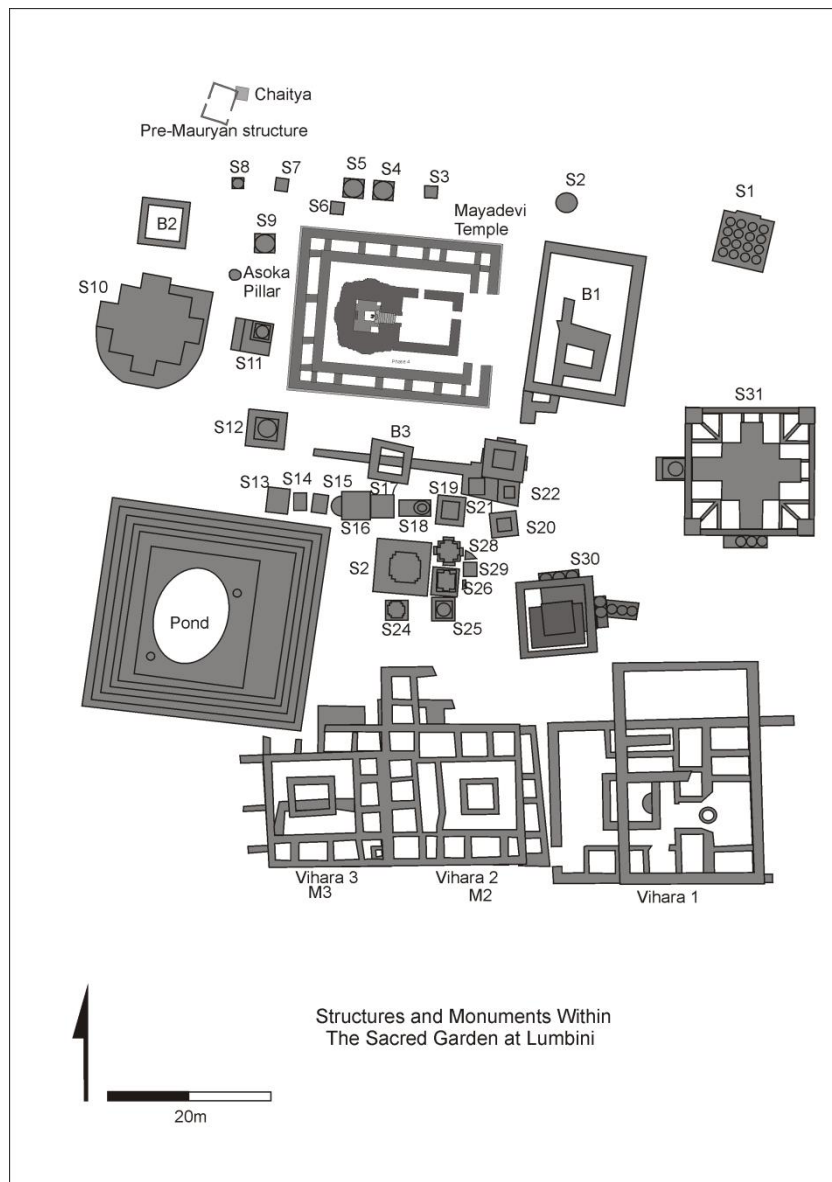


Figure 5.12. Bidari's plan of the structures in the Sacred Garden (from Bidari 2001).



Figure 5.13. Nativity image from the Maya Devi Temple, thought to date to the Gupta period. Photo courtesy of Basanta Bidari.



Figure 5.14. Photo of 'chamber' C5 of the Maya Devi Temple, directly in front of the Marker Stone. Photo courtesy of Robin Coningham.

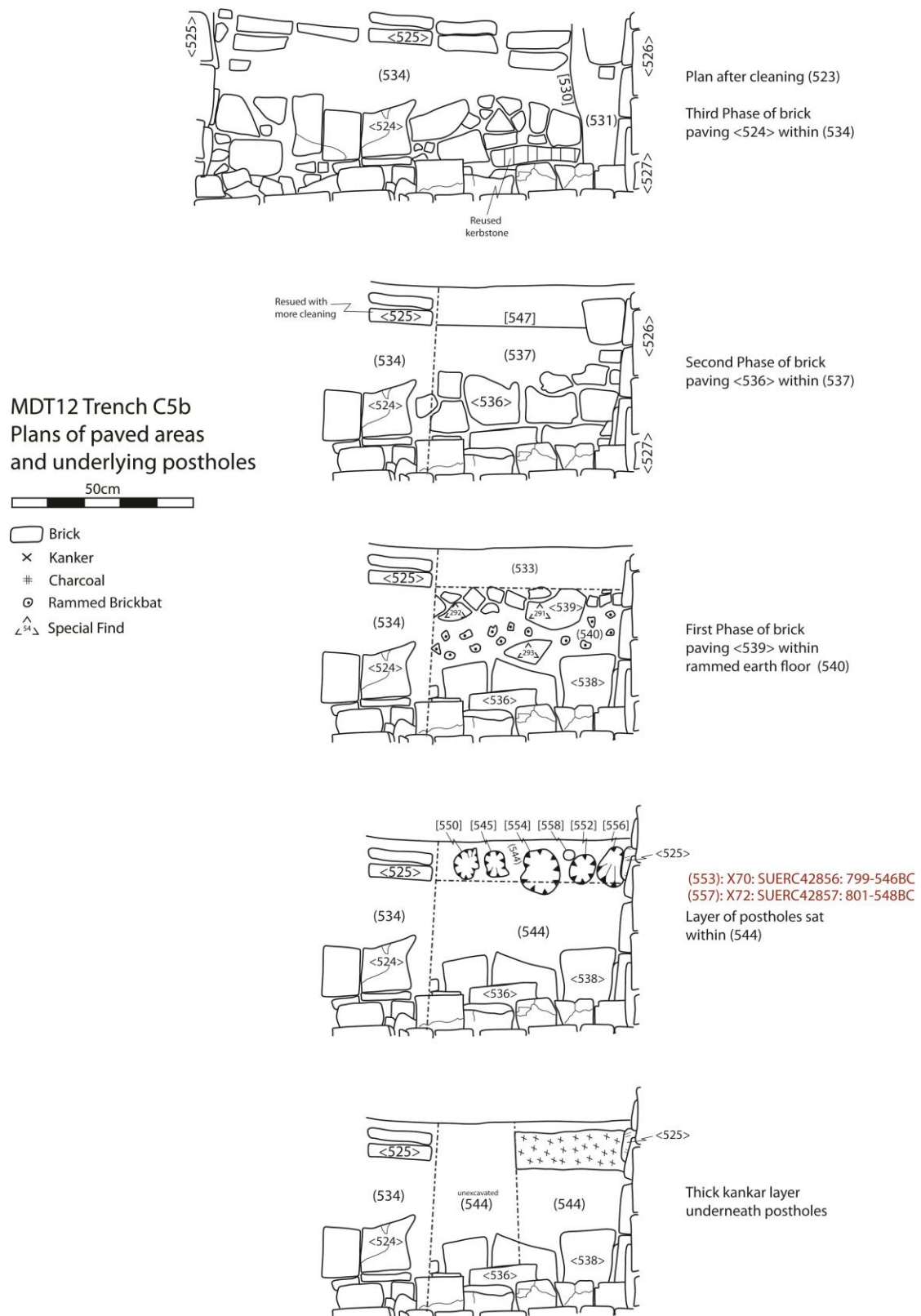


Figure 5.15. Plans of paved areas and underlying post holes in Trench C5b of the Maya Devi Temple. Drawing courtesy of Christopher Davis, Durham University.



Figure 5.16. Digital reconstruction of Period II timber railing based on postholes from Trench C5b of the Maya Devi Temple. Image courtesy of Tom Fitton, University of York.



Figure 5.17. Digital reconstruction of Period III brick kerb and pavement based on findings from Trench C5b of the Maya Devi Temple. Image courtesy of Tom Fitton, University of York.



Figure 5.18. Photo of the Sri Mahabodhi Temple in Sri Lanka.

(Image source <http://srilankamiracle.wordpress.com/2012/09/17/sri-maha-bodhi-sri-lanka/>).



Figure 5.19. Sculptural depiction of bodi-griha from Bodhi Gaya, Bihar, India. From the Marshall photographic collection, held by the Oriental Museum, Durham University (Volume 41 #3241).



Figure 5.20. Tree and swastika coin from Anuradhapura, Sri Lanka (from Coningham 2006).

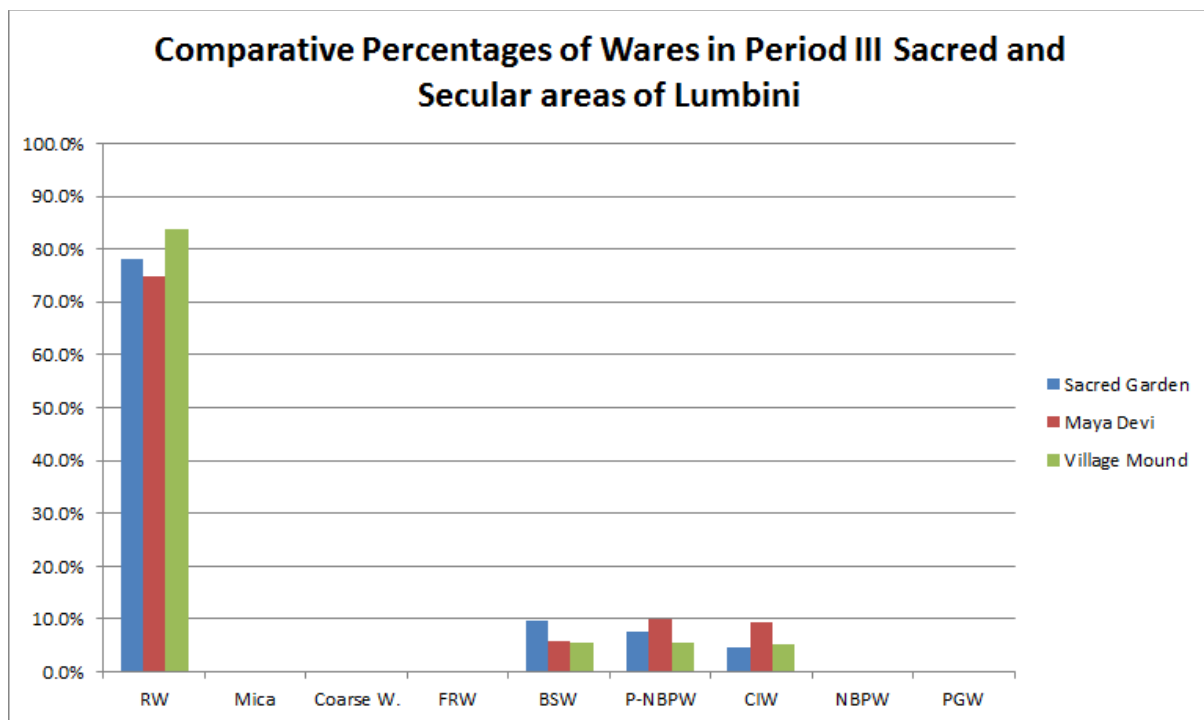


Figure 5.21. Graph depicting percentages of ceramic wares in Period III across the site of Lumbini.

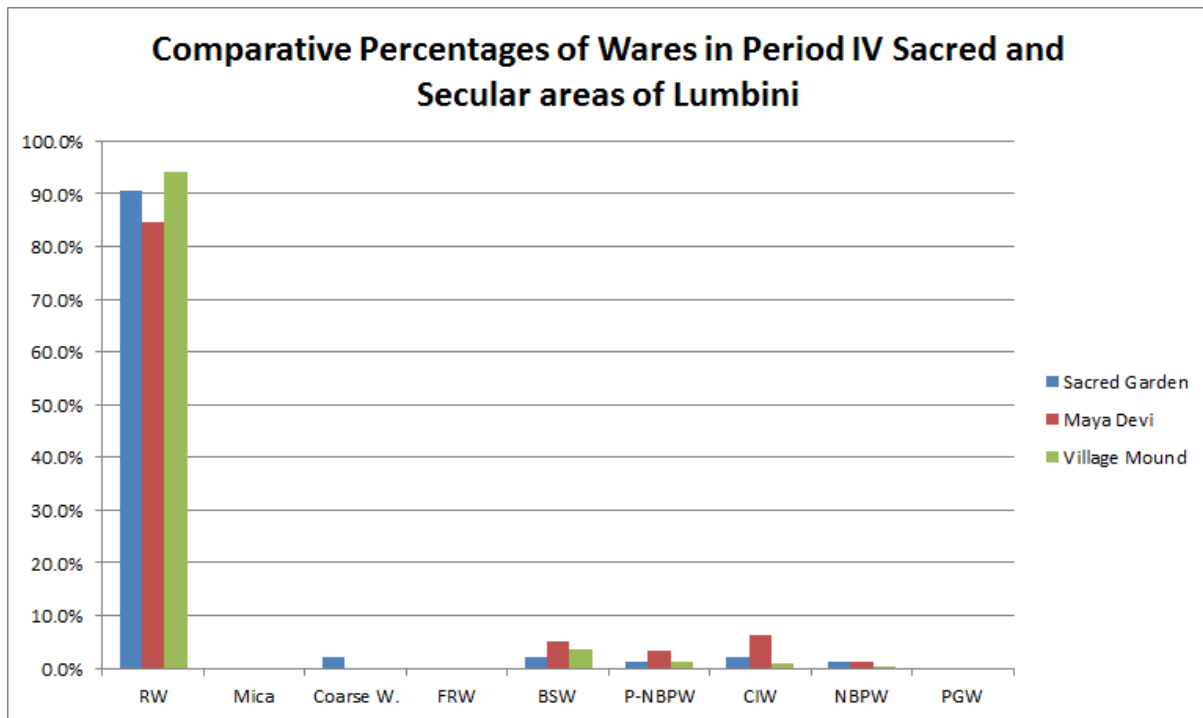


Figure 5.22. Graph depicting percentages of ceramic wares in Period IV across the site of Lumbini.

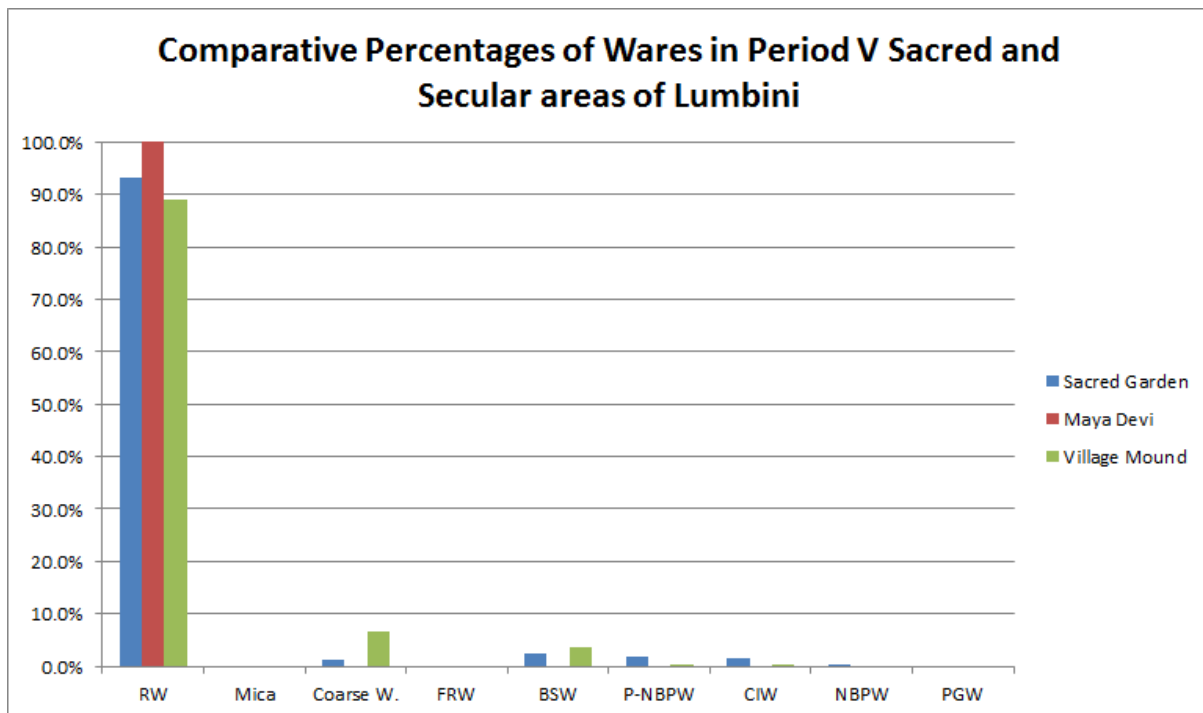


Figure 5.23. Graph depicting percentages of ceramic wares in Period V across the site of Lumbini.

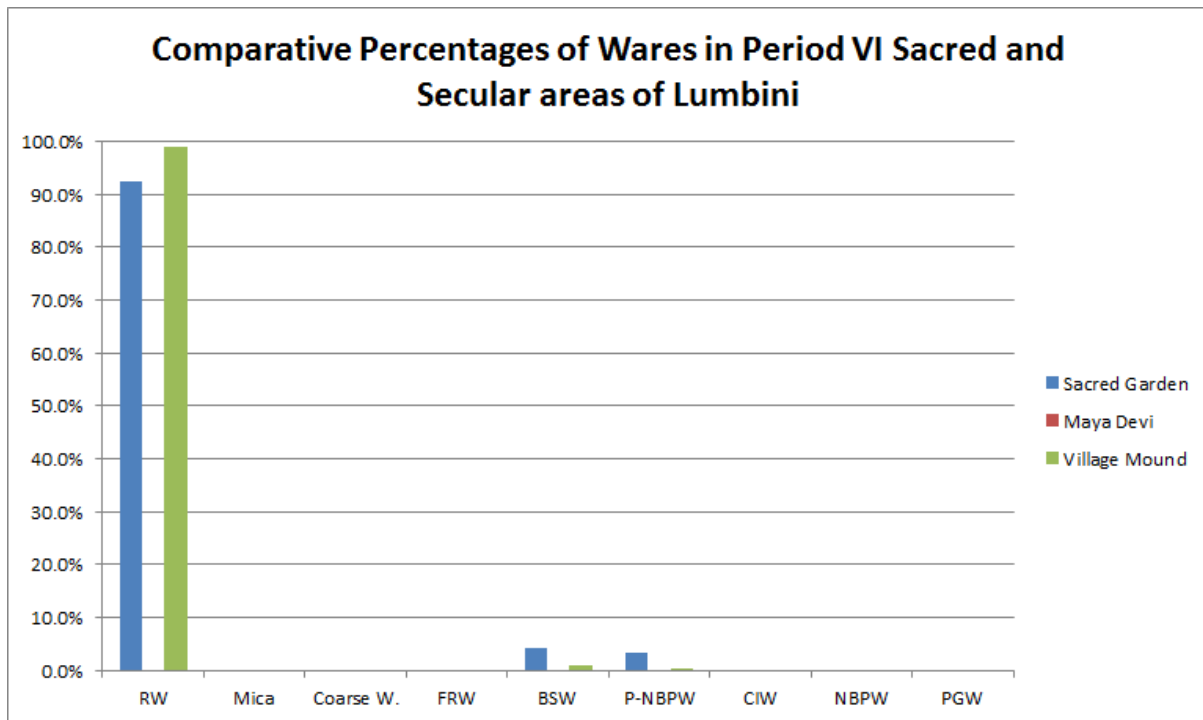


Figure 5.24. Graph comparing percentages of ceramic wares in Period VI across the site of Lumbini.

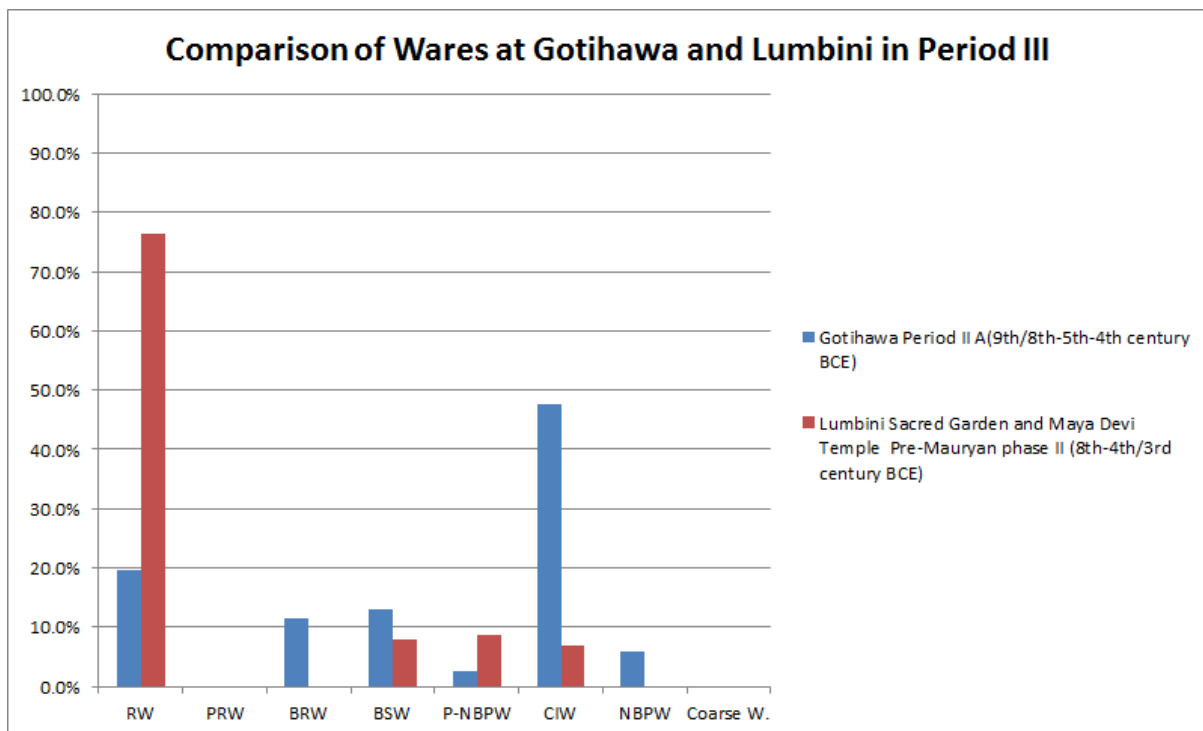


Figure 5.25. Graph comparing the percentages of ceramic wares in Period III at Lumbini with Gotihawa Period III.

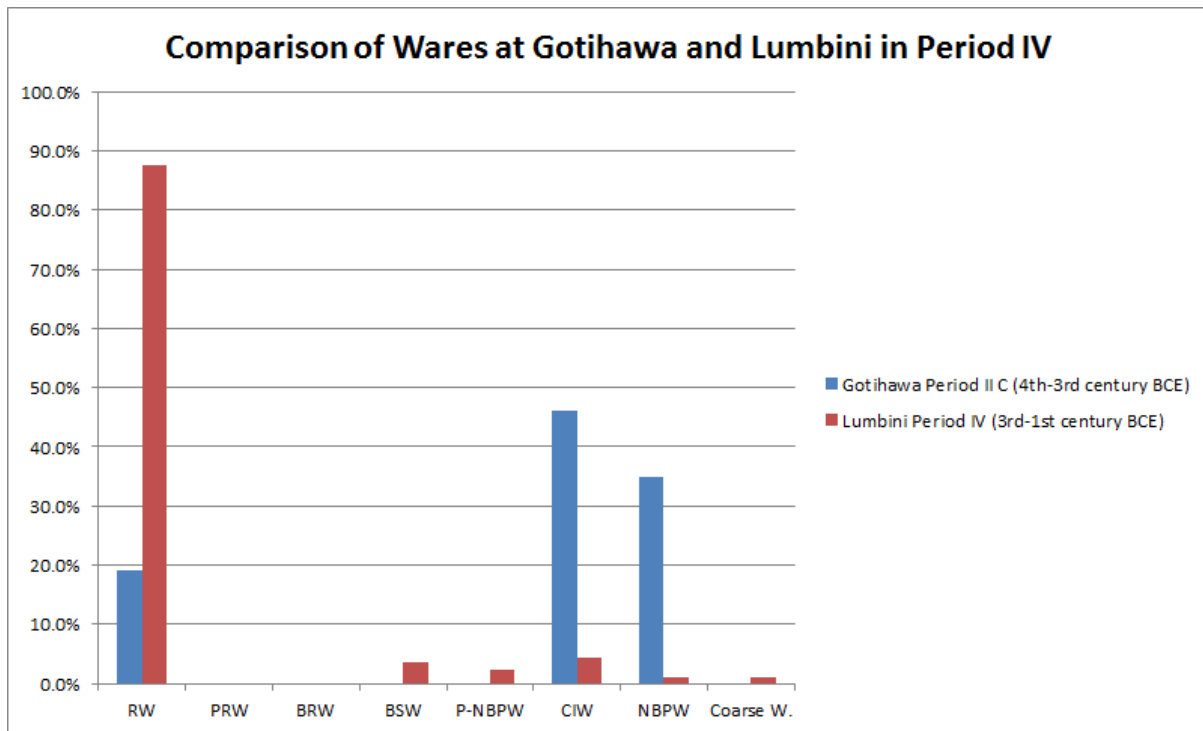


Figure 5.26. Graph comparing the percentages of ceramic wares in Period IV at Lumbini with Gotihawa Period IIc.

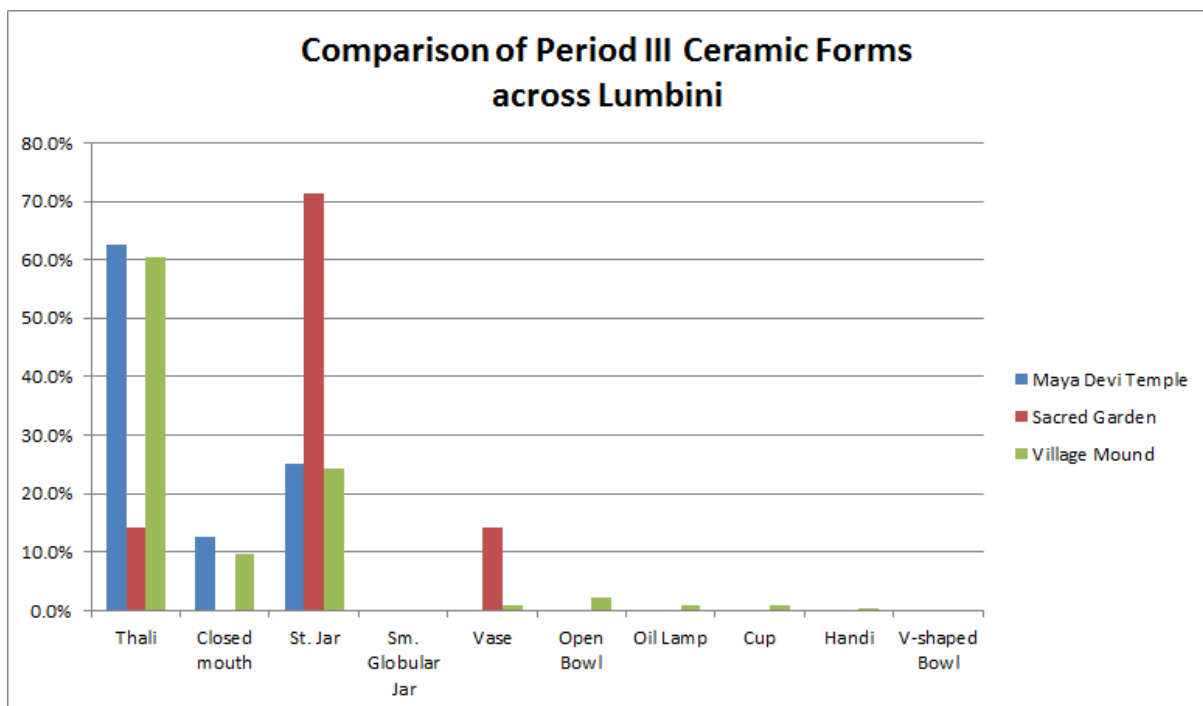


Figure 5.27. Graph comparing percentages of ceramic forms of Period III across the site of Lumbini.

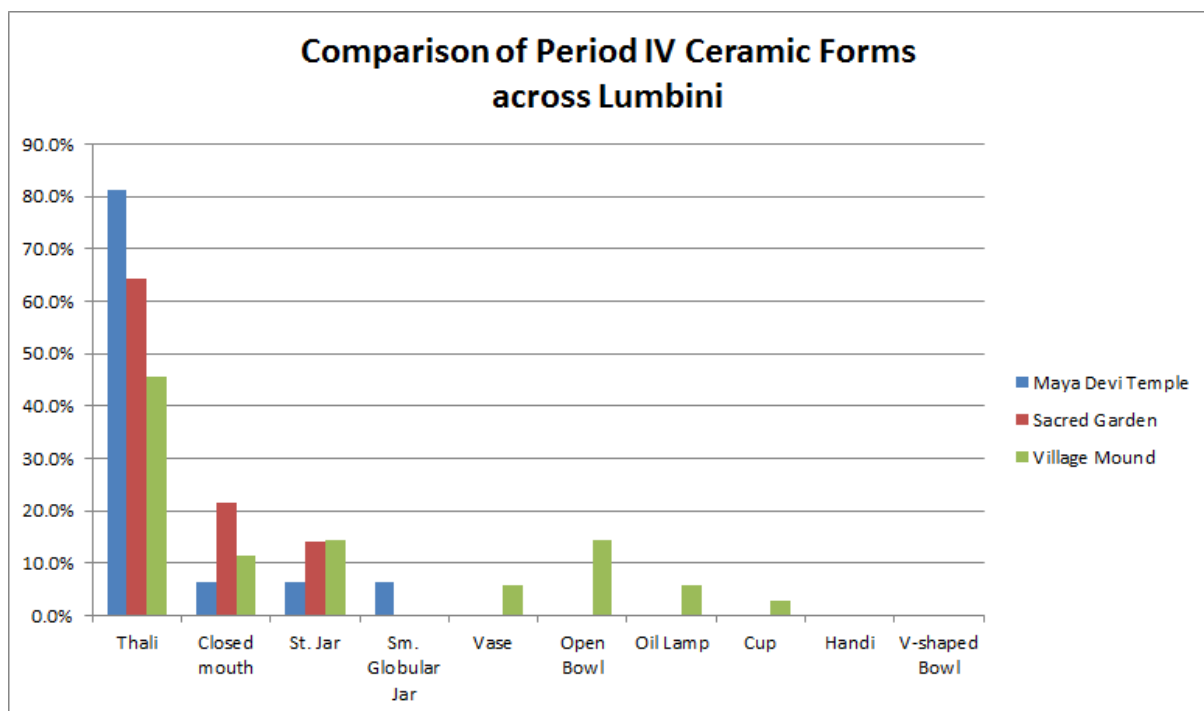


Figure 5.28. Graph comparing percentages of ceramic forms from Period IV across the site of Lumbini.

Chapter 6:

The Mauryan Horizon beyond Lumbini

6.1 Introduction

Having explored the discrepancies between the anticipated markers of Buddhism and the Mauryan Empire and the archaeological evidence from Lumbini, the objective of this chapter is to compare these 'markers' against further archaeological data from a range of sites across South Asia, specifically Gotihawa, Piprahawa/Ganwaria, Kausambi, Taxila, and Anuradhapura, in order to determine the existence or otherwise of a 'Mauryan Horizon'. The evidence from the 2011-2013 excavations at Lumbini have demonstrated that the 'typical' archaeological indicators of the Mauryan period, as described by numerous excavation reports from North and Central India, are not useful in identifying this phase or period at Lumbini. The evidence of the brick, timber, and wattle-and-daub architecture of the Maya Devi Temple along with terracotta roof tiles and painted lime plaster has shown that definitions of Mauryan period architecture need to be redefined along with the descriptions of Mauryan or Late NBPW period ceramic assemblages. The Late Northern Black Polished Ware that typifies this period is represented only in very small numbers at Lumbini, and the shift from tableware to more utilitarian forms is very slight and can only be seen at the Village Mound. The continuation of localised styles and wares such as Cord-Imprinted Ware is particularly significant at Lumbini, highlighting the regional variability of the site. The evidence from Lumbini also highlights the reliance on the identification of Mauryan remains with the identification of early Buddhism in the archaeological record. The monumental remains such as the *stupas* and *vihara* that are thought to date to the Mauryan period at Lumbini are the only material evidence for early Buddhism at the site. It is possible that due to the location and nature of the site, Lumbini is a unique case study and that other sites within the Mauryan Empire are more standardised.

As will be shown below, in many cases very little is known about Mauryan period monuments as they are often encased within later structures. In addition the dating of most of the structures that are thought to be Mauryan are based on textual sources that were written much later, inscriptions, and the presence of archaeological markers such as Northern Black Polished Ware, and punch-marked and uninscribed cast coins which, as has been described in Chapters Three and Five, are found in both pre-Mauryan and Mauryan contexts. Another method quite often used in differentiating between Mauryan and pre-Mauryan structural phases is brick size, but as mentioned

in Chapter Five and explored in more detail below, there does not appear to be any standardisation in brick size, or the margin of difference is so small that it seems unlikely that it was intentional, therefore this method is unreliable. The identification and date ranges of NBPW are highly variable, and many of the wares that have been identified as Late NBPW of the Mauryan period in the Ganga Plain, do not seem to have much resemblance to the fine NBPW of the earlier phases. At Lumbini, this ceramic marker does not seem to have had much of an impact in the archaeological record; instead there was a continuity of localised wares and styles of ceramics, such as the CIW, evolving with the changing technology from large handmade vessels packed in mats and baskets to a slightly finer fabric potted on a fast wheel, with a continuing tradition of decorating the vessels with the same cord impressions. Other 'typical' Mauryan markers such as terracotta ring-wells, drains, fortifications, and brick-built architecture are associations of urban life and have not been found at the village or sacred areas of Lumbini. What has been found and can be scientifically dated to the Mauryan period is the brick and timber phase of the Maya Devi Temple. This structure does not conform to what is typically thought of as a Mauryan period structure. Aside from the brick-built foundations, it is not 'monumental' in the way in which this has been defined at early Buddhist sites. This evidence from Lumbini highlights the need for scholars to look beyond the monumental brick structures, as well as redefining the archaeological indicators of the Mauryan Empire at early Buddhist sites and the urban sites in the Ganga Plain from which most of these markers are taken.

As described in Chapter Three, the way in which Early Historic urban sites in the Ganga Plain have been excavated has been with a different agenda and a different methodology from the way in which the Buddhist sites in the region have been excavated. Many of the Early Historic urban sites were excavated by the Archaeological Survey of India with the aims of filling in the cultural gaps between the Chalcolithic and the Iron Age, and the Iron Age to Early Historic period (Menon 2008: 19). It was particularly important to fill in these cultural gaps as it was in this time period that the Hindu epics, the *Mahabharata* and *Ramayana*, were set and many of these sites such as Hastinapura, Ayodhya, and Shringaverapura were excavated with the aim of tying them with the events in the epics. Despite many of these sites being large, central, and presumably important sites in the Mauryan Empire, in the excavation reports there is almost no mention of Asoka, the Mauryan Empire, or Mauryan material culture. This period is described as the 'Late Northern Black Polished Ware period' and generally spans from the sixth to the second or first century BCE and there is very rarely a mention of Buddhism. In fact, the only time that there is any mention of Buddhism or 'Mauryan' is if there is an Asokan pillar at the site, and even then as is the case with G.R. Sharma's excavation report on the fortifications at Kausambi, there is only a passing mention of the pillar and Ghositarama monastery (Sharma 1960. There is a separate excavation report for the Monastery). In

many excavation reports from Central India and the Deccan written in the same period, this period is described as 'Mauryan' regardless of the sites proximity to an Asokan rock edict (see Pauni and Sonkh). The excavations of Early Historic urban sites in the Ganga Plain have clearly been influenced by a nationalistic agenda which strokes a similar chord to the excavations of Buddhist sites in the nineteenth and early twentieth century. The result of this bias in the archaeological record is the neglect of the Mauryan period at sites which are not directly associated with the life of the Buddha and early Buddhism. There is very little archaeological evidence for this period and as a result the way in which we define the Mauryan period in the archaeological record is very limited. Even at sites such as Kausambi, which will be examined below, where the monastery and Asokan pillar are located within the fortification of the city, the two excavations are published separately and there is no effort to understand the interaction between the sacred and the secular, nor is there any investigation into the role which the monastery would have played within the prosperous entrepôt.

The evidence from Lumbini highlights the flaws in the way in which the Mauryan Empire is identified in the archaeological record, calling into question the influence and control of the Mauryan Empire. In light of this new evidence from Lumbini, with its indications of cultural continuity, and absence of imperial influence in the material culture, the following chapter will test the archaeological markers of the Mauryan period and early Buddhism in a review of evidence from case studies across and beyond the Mauryan Empire.

6.2 Case Studies

The five case studies that have been chosen for this chapter are all sites that are both secular (urban or village) and sacred or monastic. All but one of these sites is within what is thought to be the geographical boundaries of the Mauryan Empire and three of them have Asokan inscriptions (Figure 6.1). The fifth site, Anuradhapura in Sri Lanka was never part of the Mauryan Empire, but has ties with it, as according to the texts Asoka sent Buddhism as a gift to his ally, the Sri Lankan ruler Devanampiya Tissa, who immediately adopted it as the state religion around 250 BCE (Coningham 1995: 223). The site of Gotihawa is a small monastic site in the Nepal Terai, just 26 kilometres from Lumbini, with an Asokan pillar and a Mauryan period *stupa*. This site was chosen for its proximity and similarity to Lumbini, the presence of an Asokan pillar, as well as the excellent excavation report produced by Giovanni Verardi in 2007. This is one of the only excavation reports for the region to provide percentages and numbers for the ceramic assemblage as well as a coherent and scientifically dated stratigraphy for the monuments at the site. The sites of Piprahawa and Ganwaria are also in

the same region as Lumbini, just over the border in the Indian state of Uttar Pradesh approximately 15 kilometres from Lumbini. Piprahawa is a monastic site with Ganwaria as an adjacent town or village site. Although there is no Asokan pillar or edict at the site, the *stupa* at Piprahawa is thought to have both pre-Mauryan and Mauryan phases and the associated settlement of Ganwaria is roughly comparable in date to the Village Mound at Lumbini. The third site of Kausambi is a large fortified site on the left banks of the Yamuna River in Uttar Pradesh. The site is mentioned in numerous textual sources including the epics, *Puranas*, Pali chronicles, and Chinese pilgrims' accounts as well as having two Asokan pillars. The fortified city is one of the best examples of Early Historic urbanism in the Ganga Plain and located within the fortifications is a large Buddhist monastery and sacred area. The fourth site that will be examined in this chapter is located in what is thought to be the north-west periphery of the Mauryan Empire in modern day Pakistan. Taxila was a large and well known site located on the crossroads of Central Asia and was at the confluence of three major trade routes: one from Hindustan and Eastern India; the second from Western Asia through Bactria and across the Indus; and the third from Kashmir and Central Asia (Marshall 1960: 1). Taxila is mentioned in numerous textual sources, and several Mauryan princes were associated with the city, including Chandragupta Maurya and Asoka (Allchin 1982: 8).

6.2.1 Gotihawa

The site of Gotihawa is located in Kapilavastu District in the Nepal Terai, approximately 26 kilometres west north-west of Lumbini. The remains of the site include a Mauryan period *stupa* and the base of an Asokan pillar thought to mark both the birthplace and the location where Krakuchhanda Buddha entered *nirvana* (Verardi 2007: 13; 1998: 84). The site was first excavated by Captain Bir Jang in 1898, who uncovered the pillar. In 1899 Captain Jang was accompanied by Major L.A. Waddell who excavated the *stupa* in search of a relic casket. Although the records of the excavations were a second-hand account through P.C. Mukherji (1901), the excavators did find several fragments of wood, which were interpreted as belonging to the *stupa yasti* (ibid.). In the light of the most recent excavations at the site, Giovanni Verardi has reinterpreted the fragments of wood as likely belonging to the pre-Mauryan settlement. Similar to Lumbini, the site was transformed in the mid-twentieth century with the pillar being enshrined in a large stepped brick structure and all of the archaeological deposit cleared between the pillar and *stupa*, again destroying any stratigraphic relation between the two monuments (Verardi 2007: 13). The most recent excavations at Gotihawa were carried out by a Nepali-Italian mission over several seasons in the late 1990s and early 2000s (Figures 6.2 and 6.3). The results of the excavations provided the first evidence of occupation in this

area before 600 BCE (Hartel 1991; Verardi 2007: 16) with an unbroken sequence stretching from the Late Chalcolithic through to the early centuries CE. Similar to Lumbini, excavating below the brick horizon of the *stupa* revealed an unbroken sequence of occupation and settlement at Gotihawa, well before the Mauryan period and arrival of Asoka in the third century BCE.

The presence of the Asokan pillar at Gotihawa marks it as a 'Mauryan site', but like Lumbini there are very few other Mauryan markers aside from the pillar itself. Although the exact number of sherds was not published in the excavation report, it is mentioned that there were very few sherds from this period (ibid.: 121). Late NBPW does make up 35% of the assemblage which is consistent with the typical indicators of the Mauryan period, but again what is more interesting is that 46% of the assemblage is the later variant of Cord-Impressed Ware (CIW) described in Chapter Five. There is not enough information about the forms of vessels to make any sort of comparisons with Lumbini or the 'typical' Mauryan assemblage, but due to the small sample size and the nature of the site during this period this is not surprising. Similar to Lumbini, there is no artefactual evidence to link it to the Mauryan period or to indicate that the site was in fact Buddhist. There were no sculptures or coinage, or terracotta figurines stylistically ascribable to the Mauryan period, nor is there an inscription on the pillar identifying the site as Buddhist, but the presence of the Asokan pillar alone, marks it as an important Buddhist site.

The Mauryan period is represented by monumental brick-built architecture at the site with the construction of a brick-built *stupa*. The *stupa* and Asokan pillar are thought to be contemporary, but as Verardi states "We do not know for certain if the *stupa* was built by order of Asoka, but it is very likely, although there is no clear evidence of any brick *stupa* attributable to the Mauryan Emperor elsewhere in the region" (2007: 19). As only the bottom of the pillar remains at the site, there is no inscriptional evidence relating the construction of the *stupa* with Asoka. However, the thermoluminescence dating of the bricks provided a mean date of 280±150 BC which corresponds with the timeline for the Mauryan empire and the reign of Asoka (268–232 BCE). The results of the excavations revealed that the core of the *stupa* was built with several different kinds of bricks in a variety of shapes and sizes (Figure 6.4), some of which were purpose made with movable moulds and some of which were the remains of different brick-lots meant for other buildings, fired in the same large kiln (ibid.: 19). This is the earliest evidence in South Asia for this type of construction in relation to Buddhist *stupas*, and it is unlike any previously described. The *stupa* at Vaisali is believed to have pre-Mauryan origins as a 'mud *stupa*' enlarged in the Mauryan period (between 300-250 BCE) with substantial rectangular burnt bricks each measuring approximately 38 x 23 x 5 centimetres (Sinha and Roy 1969: 20; Verardi 2007: 129). These are considerably larger than the bricks from

Gotihawa and the renovation of the structure attributed to the first quarter of the third century BCE was “made entirely of re-used bricks and brickbats, along with a few mud-bricks” (Sinha and Roy 1969: 5). The building technique of the *stupa* at Piprahawa also differs from that of Gotihawa, as the earliest bricks are solely rectangular in shape and measure approximately 40 x 27 x 7 centimetres (Srivastava 1986: 24). The regularity of their size suggests that they were made with fixed moulds rather than the movable moulds used at Gotihawa (Verardi 2007: 129). This evidence dispels any notions of using brick size to date monuments in the Mauryan period, as they are highly variable. The Mauryan period *stupa* at Gotihawa is therefore a unique monument and may reflect a greater regional influence on building techniques and architectural style than might be expected in an imperial public-works monument under a territorial model of authority.

6.2.2 Piprahawa and Ganwaria

The site of Piprahawa/Ganwaria is located in the Siddharthanagar district of the Indian state of Uttar Pradesh just 15 kilometres south west of the site of Lumbini. Similar to Lumbini, the site is made up of both a monastic site in Piprahawa, with its *stupas* and *viharas*, and a village or township, Ganwaria, located approximately one kilometre south-west of Piprahawa (Mitra 1971: 79; Srivastava 1996: 55). For the purposes of this case study, these two sites will be treated as one, as together they provide a good comparison with Lumbini. As described in Chapter Three, Piprahawa is one of two sites in contention for the ancient city of Kapilavastu, the seat of the Buddha’s father King Siddhodhana, the other site being Tilaurakot in the Nepal Terai. There is a lot of literature surrounding this debate, most of which is not relevant to this thesis, but what is clear is that both sites appear to be occupied before and during the Mauryan period, and would have been either known to or actually visited by Asoka during his pilgrimage. The archaeological remains of Piprahawa include three major monasteries, two shrines, a public hall, a votive *stupa*, and the main relic *stupa* thought to contain the corporeal relics of the Buddha (Mitra 1971: 79; Chakrabarti 1997: 204). Piprahawa was first excavated in 1897 and 1898 when P.C. Peppé, the owner of the land, cut a large shaft nearly 5.5 metres deep through the centre of the *stupa*, encountering numerous reliquaries (Srivastava 1996: 5; Mukherji 1901: 43). One particular reliquary that has been subject to much speculation and controversy is a small steatite vase with an inscription in Brahmi around the lid. As part of his explorations in the Nepal Terai, P.C. Mukherji visited the site of Piprahawa in 1899 and “excavated a little here and there” (1901: 43). It is interesting to note that Mukherji describes several phases of platforms beneath and around the *stupa* which he interprets as platforms for circumambulation. He describes one of the early platforms as “only 1 foot thick in brick-work, and

edged by a line of standing bricks, that is, bricks-on-edge” (1901: 44). Excavations resumed at Piprahawa in 1972 in response to the publication of Debala Mitra’s report on her excavations at Tilaurakot, with K.M. Srivastava from the Archaeological Survey of India excavating both the sacred site of Piprahawa and the nearby archaeological mound in the village of Ganwaria. Srivastava re-excavated the *stupa* at Piprahawa with the idea that there was another level of relics below the ones found by Peppé. His hypothesis proved to be correct and two brick chambers were found at a depth of six metres from the top of the stupa, revealing two soapstone caskets with charred bones inside (Srivastava 1996: 25) (Figure 6.5). Further excavations by Srivastava in the area, and the evidence of the dishes found alongside the caskets, established that the relic caskets were contemporaneous to the early period of Northern Black Polished Ware, which could be dated to the fifth-fourth century BCE. These results confirmed to many that Piprahawa was indeed Kapilavastu (ibid.). The two habitation mounds at the nearby village of Ganwaria had been misinterpreted as *stupas* in the past, and as a result large trenches were cut through the centre of each. In 1974, Srivastava began excavations on these mounds with the intention of tying them together with the monastic site of Piprahawa. The phasing and chronology of the site is entirely based on the use of NBPW as a datum with its accepted date range of 600-200 BCE. Therefore, the period of occupation before the presence of NBPW is ascribed to 800-600 BCE and characterised by Grey Ware, Black Polished Ware and, although not identified as such by Srivastava, Black and Red Ware, with the phase after NBPW ascribed to the Sunga dynasty (ibid.: 56). Excavations by the ASI at the site of Piprahawa have continued to the present with the most recent excavations taking place in 2013. However, it appears that the phasing of the site has remained the same with Period II ranging from 600-200 BCE, and this period marked by the presence of NBPW, however meagre in numbers. Radiocarbon samples have been taken and excavators are awaiting the results which may help to better understand the phasing of the site (Mani and Mishra 2013: 146).

The structural evidence for the Mauryan period at Piprahawa and Ganwaria is limited to one construction phase of the Period II burnt brick architecture (phase III) in the ‘large structural complex’ at Ganwaria, dated from the fourth-third century BCE and the ‘smaller structural complex’ which appears to be a quadrangular monastery. The structural periods in both of the complexes seems to have been based on the brick size (Srivastava 1996: 63) and associated finds, although there is no mention of their contexts. All of the other structural remains are dated to the Sunga period and later, with the majority built in the Kushan period. The major difference between the structures of Period I and Period II appears to be the introduction of brick architecture, with Period I structures of mud and timber “devoid of any systematic planning in their construction” and without a uniform plan (ibid.: 58). In contrast, the structures of Period II (NBPW) reflect the “prosperous

condition of the inhabitants” with “brisk burnt structural activity planned on a systematic line” (ibid.: 60). In addition to the brick architecture, the remains of this period also include all of the typical appurtenances of Early Historic urbanism including terracotta ring-wells and soakage or drainage jars (Figure 6.6). Other finds that are ascribed to this period include coinage, NBPW, and hand-moulded terracotta figurines. However, Srivastava does note that there were no ‘Mauryan coins’ present in the assemblage. He describes these Mauryan punch-marked coins as having on the reverse the symbol of either a crescent mounted three-peaked hill, peacock-mounted five-peaked hill, or a Caduceus as the only mark. Among these symbols the crescent mounted three-peaked hill is taken as the royal symbol of the Emperor Asoka (ibid.: 105).

6.2.3 Kausambi

The site of Kausambi is located in Kausambi District of the Indian state of Uttar Pradesh, approximately 56 kilometres south west of Allahabad. Once located on the banks of the Yamuna River, the largest tributary of the Ganges in northern India, the ancient city of Kausambi is described in numerous textual sources including the *Ramayana*, the Puranas, Upanishads, the *Mahavamsa*, as well as both the Chinese pilgrims’ accounts and the Asokan pillar at Allahabad and Kausambi itself (Sahni 1927: 690; Sharma 1960: 25). Kausambi was the prosperous capital of the Vatsas, one the Mahajanapadas that, according to textual sources, existed in ancient India from the sixth-fourth century BCE (Sharma 1960: 25). Located on the Yamuna River, the city was once a prosperous and wealthy entrepôt and the city and its sixth century BCE ruler, King Udayana, are featured in several narratives around the life of the Buddha. It is told that the Buddha visited the city several times and spent his ninth rainy season at Kausambi, and that King Udayana, who was originally opposed to Buddhism, later converted and made Buddhism the state religion (Sahni 1927: 690). The site was certainly important in the Mauryan period to be mentioned in two different Asokan pillar inscriptions (Allahabad and Kausambi), but the excavations of the site over the past century have been fragmentary and with a specific agenda towards the earlier history of the site.

The extensive ruins near the village of Kosam on the Yamuna River were first identified as the ancient city of Kausambi by Alexander Cunningham in the late nineteenth century, as part of his campaign to locate Buddhist sites mentioned in the Chinese Pilgrims’ accounts (Mitra 1971: 82; Sharma 1960: 25). However, once the Asokan pillar was located excavations at the site did not start until 1937, when the ASI excavated near the pillar, and this was followed in 1949 by G.R. Sharma’s lengthy excavations directing a team from the University of Allahabad. Sharma’s excavations

between 1951-1956 uncovered the monastery of Ghositarama where, according to the texts, the Buddha passed his ninth rainy season (Mitra 1972: 82; Sharma 1960: 26; 1993: 26; Chakrabarti 1997: 194). The texts describe the monastery as having been built by one of the wealthiest bankers of Kausambi in the sixth century BCE, Ghosita, who together with two other bankers, Kukkuta and Pavarika, built retreats for the Buddha and his followers and encouraged the growth of Buddhism in the city. The second phase of excavations was focused on the defences of the urban site and in ascertaining the antiquity of the rampart (*ibid.*) (Figure 6.7). In 2008 Allahabad University and the Indian Institute of Technology began a project, led by G.K Rai, to re-survey using ground penetrating radar and re-excavate the site, but their results have not yet been made accessible to the public (Mani 2008). The site stretches over an area of almost 21 square kilometres both inside and outside the fortified enclosure, which itself measures almost 6.5 kilometres in length (Chakrabarti 1997: 195).

Sharma's phasing of the site has come under a lot of suspicion and is widely regarded as incorrect, as he dates the earliest phase of the rampart to 1025 BCE on the basis of the number of layers (Barba 2004: 239; Erdosy 1987). The 9.14 metre thick cultural deposit at the site has been divided into only four periods, with 25 structural periods or phases, and with each of these structural periods having an assigned life span of 70 years (Chakrabarti 1997: 196). Period I (Structural period 1-4) dating from 1025-885 BCE is based on a likeness of the ceramics from the site of Navdatoli which has a radiocarbon date of 1500-1100 BCE and is characterised by the presence of Black and Red Ware along with some elements which Sharma describes as being "generally Chalcolithic" (Sharma 1960: 23). Period II is characterised by the presence of Painted Grey Ware and is comprised of structural periods 5 through 8 and dated to 885-605 BCE based on the presence of PGW and the four 70 year structural periods where PGW is present. Period III is the Northern Black Polished Ware period and due to the lengthy time frame ascribed to the ware in the Ganga Plain, this period at Kausambi encompasses nearly 600 years of occupation including the Mauryan period, ranging from 605-45 BCE with structural periods 9 through 16 (*ibid.*: 22). The date for this period is based on the presence of NBPW and associated artefacts, including coins and terracotta figurines, as well as a few radiocarbon samples. The final period at the site spans another large time period ranging from 45 BCE – 580 CE when the city was sacked by the Hunas (*ibid.*) (Figure 6.8). The Ghositarama monastery is located inside the fortifications, between the eastern gateway and the north bend of the rampart, and as there appear to be fewer structural periods at the monastery, Sharma has assigned an average period span of 75 years rather than the 70 years for the rest of the site (*ibid.*). Sharma notes whilst Xuanzang credits Asoka with the building of the Main Stupa at Ghositarama, it is more likely that it was built in the fifth century BCE based on the presence of NBPW and his phasing of the rest of the

site (Sharma 1956: 20). It is not only Sharma's phasing of the site that has come under criticism, but his identification of the palace of Udayana and an eagle-shaped fire altar within the city (Chakrabarti 1997: 198). These criticisms are not based on a re-excavation of the site, but a re-evaluation of the published material, and many were not published until after the death of Sharma in the 1980s. In 1973, K.K. Sinha published a short paper refuting Sharma's chronology of the site, claiming that the evidence for Period I, the so-called PGW phase, was flawed and that the two examples of PGW that were published are the wrong shape and not as fine as the examples from Hastinapura (1973: 232). Even if these examples were PGW, it is known from sites such as Sravasti that both PGW and NBPW were coeval and that the antiquity of the site cannot be any older than 600 BCE. Sinha concedes that dating of Period II, the NBPW period at Kausambi, is firm and the 'intrinsic evidence of Kausambi is formidable enough for the dating of NBPW and does not require support from comparable sites like Taxila or Hastinapura' (ibid.).

Despite the confusing and seemingly erroneous phasing of the site, Kausambi remains one of the biggest and most important Early Historic sites in the Ganga Plain. According to textual sources, the city was an important centre in the Mauryan period, which is attested by the presence of two Asokan pillars (Sharma 1960. The Allahabad pillar is thought to have been moved from Kausambi) (Figure 6.9). Despite the presence of these pillars near a large Buddhist monastery within the fortifications, there is no mention of the Mauryans at Kausambi in Sharma's excavation report on the fortifications and structures within the city. The Mauryans and indeed Buddhism are only discussed in the excavation report on the Ghositarama monastery (Sharma 1969), once again maintaining this link between the Mauryan Empire and Buddhism in the archaeology of the Ganga Plain. Despite the fact that there is almost no mention of the Mauryan Empire or the Emperor Asoka in Sharma's excavation report, but based on the archaeological markers of the Mauryan period as described in Chapter Three, Kausambi could be considered a 'type site'. At Kausambi, Period III is not even separated into early and late NBPW phases and the only description of the ceramics from this period is confined to a very short paragraph describing the NBPW, and noting that there was also residual PGW present in this period (ibid.: 59). Sharma also mentions that this period is characterised by 'Mauryan terracotta figurines', punch-marked coins and uninscribed cast coins, monumental brick structures (both secular and sacred), fortifications, Asokan pillars, terracotta ring-wells, roads etc. However, as with all of the sites in this chapter the only evidence that can be positively ascribed and dated to the Mauryan Empire is the Asokan pillar, the rest having an extensive date range from at least the sixth century BCE through to the first century BCE.

6.2.4 Taxila

Taxila was one the most important cities in ancient India, located in the present Khyber Pakhtunkhwa Province (Formerly the North West Frontier Province) of Pakistan. It stood at the confluence of three major trade routes: one from Hindustan and Eastern India; the second from Western Asia through Bactria and across the Indus; and the third from Kashmir and Central Asia (Marshall 1960: 1). The city was a cultural mosaic at the crossroads of Asia, and the excavations that have taken place at the site under Marshall and many others since, have revealed the remains of three successive cities, and numerous religious complexes. The extensive ruins cover over 31 square kilometres of cities, shrines, monasteries and temples (Dani 1986: 79).

Taxila is not directly linked with the life of the historical Buddha, but it is one of the areas in which Buddhism took hold in the Early Historic period, and from which it was carried out into other areas of Asia. The art and architecture of Gandharan Buddhism is very distinctive as it blends South Asian influences with Classical forms and traditions, and gave rise to the first known images of the Buddha (Coomaraswamy 2006). The hinterlands and high mountain valleys of Gandhara, as the ancient kingdom was known, are home to many other monastic and religious complexes, linking Taxila with a rich network of monumental sites. These sites, such as Saidu Sharif I and Butkara I are instrumental in understanding the nature of early Gandharan Buddhism, as they provide unbroken sequences from the proto-historic Gandharan Grave Culture through to the arrival of Buddhism in the Mauryan period.

The first archaeologist to identify the site of Taxila was Alexander Cunningham in 1863, but it was not until 1913 that John Marshall began excavations at the site. These excavations were conducted from 1913-1934 resulting in a three volume monograph (Marshall 1951). Excavations were also carried out by Mortimer Wheeler and the ASI from 1944-1945 (Ghosh 1948) and then again from 1967-68 by Mr. Mohammad Sharif of the Pakistan Archaeological Department (Sharif 1969). The most recent investigations at Taxila took place in 1980 with the joint Pakistan-British Potwar Project, which resulted in a re-evaluation of the antiquity of the site (Allchin 1982; Dani 1986). Further north, in the Swat Valley the Italian Mission of the Istituto Italiano per l'Africa e l'Oriente has excavated both proto-historic and Buddhist sites over the last century, establishing a clear sequence for the region.

During the excavations of Marshall and Wheeler, the Bhir Mound was thought to be the oldest part of the site, having been established by the Achaemenid Empire somewhere around 500 BCE and lasting for more than three centuries through the Mauryan period (Allchin 1982: 8). However, the

results from the Pakistan-British Potwar Project excavations of the Haithal mound in the 1980s, revealed that the antiquity of the site stretched back at least into the start of the first millennium BCE (Dani 1986: 81). The excavations of Mound B at Haithal revealed a fortified enclosure dating to the sixth century BCE and continuous occupation from approximately 1000 BCE through to at least the first century BCE, overlapping with the occupation of the Bhir Mound (ibid.). It was proposed that as this area was fortified it likely acted as a citadel or acropolis, while the residential area of the Bhir Mound remained unfortified (ibid.). The second city of Sirkap at Taxila was established by the Indo-Greeks soon after 200 BCE, lasting until approximately 100 CE until the establishment of the city of Sirsukh by the Kushans (Allchin 1982: 8).

The site has several Mauryan associations, with numerous references in the textual sources, as the capital of the Northern Province and one of the main cities of the Empire. Several Mauryan princes were associated with the city, including Chandragupta Maurya who rose to power in Taxila, where he had his early education, and later his grandson Asoka was sent there twice from Ujjain to quell the uprising of the citizens of Taxila (ibid.). According to the textual sources, Taxila came under the control of Alexander the Great in 326 BCE and it was in the years after his death in 323 BCE that the city was incorporated into the growing Mauryan Empire (Marshall 1951: 20). The narratives tell of one of Alexander's generals, Seleucus Nicator crossing the Indus to recover the Indian provinces of Alexander the Great, only to encounter the formidable force of the Mauryan Emperor Chandragupta, and Seleucus was forced to sign a peace treaty (ibid.). It is not certain if Asoka ruled as viceroy at Taxila or if he merely spent a lot of time in the city putting down rebellions when he was viceroy of Ujjain, but according to texts such as the *Arthashastra*, it is certain that the city was ruled with rigid and centralised control and that rebellions were common (ibid.).

For all that is known from the textual sources about the Mauryan period in Taxila, there is very little archaeological evidence that can be attributed to the Mauryans (Dani 1986: 53). There is an inscription that has been attributed to Asoka found in the city of Sirkap, engraved on an octagonal memorial pillar of white marble "built into the east-west party wall between the two chambers at the north west corner of the building, and must therefore have been in its present worn and broken condition at the beginning of the Christian era" (Marshall 1951: 164). The inscription on the pillar is written in Aramaic script and language, which is also used on the Asokan inscriptions in present-day Afghanistan (Dani 1986: 55). One of the most famous monuments at Taxila is that of the *Dharmarajika stupa* which is located south of Hathail on an eastern route along the Tamra rivulet. There are several other monasteries on this route, but *Dharmarajika* is the nearest to the Bhir Mound and Sirkap (ibid.: 118) (Figure 6.10). Marshall claimed that the main *stupa* might have been

attributed to Asoka, based on the fact that according to the Buddhist work, *divyavadana*, Asoka is referred to as Dharmaraja (Marshall 1951: 234). Aside from the inscription and the tenuous identification of the *Dharmarajika stupa* that has been attributed to Asoka, “no monumental architecture has so far been found in the Bhir mound that could be credited to the Mauryan rulers. It is strange that in spite of so many Mauryan princes known to have lived in Taxila, no monuments of royal importance have been discovered” (Dani 1986: 53). Dani goes on to suggest that the Mauryan remains have not yet been excavated at Taxila (ibid.: 54). In addition, Dani writes that “the Bhir mound has not produced any stupa so far, although it is regarded as a Mauryan city” (ibid.: 117). There is also no evidence at this time of a Buddhist monastery dating to the time of Asoka or the Indo-Greeks. However, Dani does not take this as evidence that early Buddhism did not exist at Taxila, but that the original structure of the monastery must have been later incorporated into the enlarged buildings that were subsequently erected (1986: 168). Marshall did identify a pillared hall or temple in the Bhir Mound, but nothing was found which could be identified specifically as Buddhist. In fact, Marshall claimed that due to the number of terracotta figurines found around the area, the temple was ‘Hindu’ or ‘Vedic’ (ibid.).

Marshall lamented the haphazard and irregular layout of the Mauryan period city of the Bhir mound, remarking that “its streets crooked, its houses ill-planned and built of rough rubble masonry in mud, while though neater and more compact than the masonry of the earlier settlement below it was still relatively crude and primitive” (Marshall 1951: 19f). That being said, the Bhir Mound still had all of the same trappings of urbanism that have been identified in the Early Historic cities in the Ganges, with terracotta ring-wells, drains, soakage jars and pits, roads etc (Figure 6.11). Without any identifiable Mauryan monuments and architecture in the Bhir Mound, the dating of the strata was derived from the minor antiquities, particularly NBPW, which Marshall initially identified as Greek Black Polished Ware but which Sharif (1966) identified as NBPW. As described in Chapter Three, the date range for Northern Black Polished ware outside of the Ganga Plain seems to differ quite a bit from the generally accepted 600-100 BCE dates from sites such as Kausambi and Hastinapura. NBPW at Taxila is thought to be associated with the spread of the Mauryan Empire, and is therefore dated to the fourth-third century BCE (Dani 1986: 48). One feature that Marshall did make note of in the material culture from the successive cities of the Bhir Mound and Sirkap was “the way in which the influence of Hindostan obtruded itself in the arts and crafts of Taxila during the Maurya regime, but only during that regime” (1951: 22). He claimed that up to the fourth century BCE foreign influence in the minor antiquities came from the west, specifically Persia, but with the rise of the Mauryan Empire the direction of influence changed and for the span of a century it came mostly from the east, the Ganga Plain, with identifiable items such as NBPW (ibid.). After the fall of the Mauryans and

the arrival of the Indo-Greeks at Taxila, the direction of influence changed again, back to the west (ibid.). This changing influence can be seen particularly in the luxury items such as jewellery which show the assimilation of new forms, designs and techniques. Despite most of the discussion emphasising the external influences at Taxila, the excavations at the Bhir Mound revealed the now familiar pattern in these case studies of continuity of local traditions in material culture, particularly visible in the everyday items of the people (Dani 1986: 156).

6.2.5 Anuradhapura

Although Anuradhapura has little connection with the life of the historical Buddha, it has remained one of the most important sites in South Asia for understanding the development of Buddhism in the Early Historic and Early Medieval periods. The city is located in the North Central province of the dry zone of Sri Lanka. Anuradhapura was the capital city of the principal kingdom of the island from the second century BCE to the eleventh century CE (Coningham 1999: 1f; de Silva 2005: 18ff). The site of Anuradhapura has been subject to some of the most intensive archaeological excavations of any Early Historic city in South Asia (Coningham 1999; 2006; Deraniyagala 1972; 1986; 1990) and has been an important focal point for Buddhism in South India and Sri Lanka since the 3rd century BCE. According to the *Mahavamsa*, the Pali chronicle detailing the history of the island, Buddhism came to Sri Lanka during the reign of the Mauryan Emperor Asoka (Coningham 1995: 223). The story tells of how the Emperor Asoka sent Buddhism as a gift to his ally, the Sri Lankan ruler Devanampiya Tissa, who immediately adopted it as the state religion around 250 BCE (ibid.). Anuradhapura is also mentioned in the fifth century CE account of Chinese pilgrim Faxian who reports that approximately eight thousand Buddhist monks then resided in the capital city. Faxian also notes that a public ritual procession of the Dalada (tooth-relic of the Buddha) was celebrated annually; that the cult of Sri Mahabodhi (a graft of the original bodhi tree at Bodh Gaya in India) was regularly venerated and lavishly supported by the laity and the king; and that Lankan kings had built massive stupas to commemorate the Buddha and his relics (Coningham 1999: 21).

Excavations at the site of Anuradhapura were carried out by the Anuradhapura (Sri Lanka) Project between 1989-2010. The first phase of excavations focused on establishing a stratigraphic chronology of the urban core of the citadel region of the city. Between 1989 and 1994 intensive excavations were carried out and archaeological deposits from Anuradhapura Salgaha Watta 2 (ASW 2)—a 10 x 10 x 10 metre trench in the Citadel—revealed an unbroken sequence of development from an Iron Age village into a medieval metropolis (Figure 6.12), and included evidence of the

appearance of an early Brahmi script, monumental structures, irrigation works, imported goods, and craft specialisation (Coningham 1999; 2006). The results of the excavation shed light on many different issues and aspects of South Asian history, including Anuradhapura's key role in the Indian Ocean trade networks during both the city's infancy and at its apogee. The second phase of the Anuradhapura project focused on defining an Early Medieval hinterland. The UMOEP (Upper Malwatu Oya Exploration Project) identified hundreds of small sites surrounding the city and monastic complex by using a systematic method of survey and excavation. The results of this second phase of the project have shed light on the interaction and networking between urban and non-urban communities, and the role of monastic institutions within the settlement patterns of the Anuradhapura hinterlands.

Although there is evidence of occupation in the area dating as early as c.3000 BCE, the first settled occupation from ASW 2 within the Citadel has been dated to c. 849-460 cal. BC (Coningham and Batt 1999: 126). The following structural period (period J) ran from 510-340 cal. BC and the artefactual record remained largely unchanged from the preceding period, with Black and Red Burnished Ware dominating the ceramic assemblage, and with the addition of a small number of medium fine Grey Ware sherds. The most significant finds from this period were four ceramics sherds bearing Brahmi script. It was not until the following structural period (period I), dating between 360-190 cal. BC that significant changes could be seen in both the artefactual and structural records at the site. At the start of this period, round structures were replaced by cardinally oriented square or oblong structures, still constructed of timber and wattle-and-daub and roofed with palm, although this roofing material was replaced with kiln-fired terracotta tiles in the later phases (ibid.: 128). It is interesting to note that the use of terracotta tile seems to pre-date the use of brick in the ASW 2 sequence. It was also during this period that the settlement at the site appears to have increased in size by roughly 60%, with a cardinally oriented rampart and ditch constructed around the settlement, enclosing approximately 100 hectares (ibid.). There was also a noted change in the ceramic assemblage from this period with the presence of a fine Grey Ware, and one sherd of NBPW (ibid.). This period also marks the first appearance of coinage in the sequence, with two identifiable punch-marked coins, and one possible punch-marked coin, as well as one elephant and swastika coin, and one tree and swastika or *caitya* coin (ibid.). Several of these coins were found together in a pit feature which was dated to between the mid fourth century - last quarter third century BCE (ibid.). The following structural periods H and G have a small amount of overlap with structural period I, dating from 200 BC-130 cal. AD, but marked a noted change in the structural sequence with the first use of limestone and brick in construction. This technique did not replace the earlier timber and wattle-and-daub structure but was coeval (ibid.: 129). This was also the first period in which

there was clear evidence of Indian Ocean trade, marked by the presence of Arikamedu Type 10 ceramics, an ivory mirror stand, two sherds of a moulded glass vessel from the eastern Mediterranean, and 4 sherds of Turquoise Glaze Ware of Western Asian origin (ibid.). The following structural phases reveal a more complex urban site with clear evidence of the importance of Anuradhapura in the networks of Indian Ocean trade, but these phases are beyond the chronological scope of this thesis, and are not included here.

Although Anuradhapura was never part of the Mauryan Empire, it has often been linked to it through the narrative of Asoka and the spread of Buddhism to the island in the *Mahavamsa*. The emergence of the city as an urban form has been linked to Mauryan colonisation and expansion (Allchin 1990), although there is very little archaeological evidence for this assertion. In fact, using the Mauryan markers that have been outlined throughout this thesis there is no direct evidence of the Mauryan Empire within the Citadel. However, there was a noted change in the archaeological record beginning in the fourth century BCE, with round structures being replaced by cardinally oriented square or oblong structures, the use of kiln-fired terracotta roof tiles, a dramatic increase in settlement size, and the construction of the fortifications. There were also changes in the artefactual record with the appearance of punch-marked coins and a change in the ceramic assemblage, with the addition of a fine grey ware and NBPW. These changes began before the reign of Asoka in the third century BCE and intensified throughout the Early Historic period.

Despite evidence of connections to exchange networks and significant changes to the size and design of the city during this period, there were several continuities in the archaeological record, including the continued use of timber and wattle-and-daub for building materials despite the changes in the shape and size of the buildings. The 'monumental' brick and stone architecture did not emerge until period G (200 BC-130 AD) when there is significant evidence of Indian Ocean trade (Coningham and Batt 1999: 129). It is therefore likely that this change owed more to the contact through trade than any imperial expansion or colonisation. Similar to Taxila and Kausambi, Anuradhapura was a pre-Mauryan fortified urban centre (ibid.: 1). However, the presence of punch-marked coins and NBPW indicate that there was contact and exchange with the Ganga Plain during this period. This notion of trade relations with the northern Subcontinent is further supported by the presence of lapis lazuli from Afghanistan and carnelian from Gujarat, both found in Periods I and J (ibid.: 165).

Within the monastic zone of Anuradhapura the oldest and the largest monastery, the Mahavihara, is believed to have been founded by Devanampiya Tissa in the third century BCE, as well as monuments such as the Thuparama (Coningham 1999: 22). However, this is based entirely on the

textual record as the site has undergone over a millennium of rebuilding and remodelling, enlarging and altering the monuments to fit with the changing ritual focus (ibid.: 21; Bouzek 1993). It is worth highlighting here that although excavation below the brick horizons of the monuments and *stupas* at Anuradhapura has not occurred, there is a body of evidence to indicate that Buddhism was known and practiced on Sri Lanka by a multitude of merchants and the ruling elite between the third and first century BCE. More than a thousand cave sites and rock shelters have been recorded with inscriptions documenting donations by royal, noble and otherwise wealthy patrons of Buddhism in the region. Coningham notes that the evidence of these inscriptions is at odds with the texts, which describe only donations by the royalty of Anuradhapura, and states that of the 1,234 donations recorded, 79 were from royal patrons, but that many of these were from the rulers of cities other than Anuradhapura (Coningham 1995: 232).

The site of Anuradhapura offers an interesting case study for the examination of the Mauryan Empire, as it is a site that is not within the perceived boundaries of the Empire, but has been linked to the Mauryan expansion both in terms of the urban form and the spread of early Buddhism. There is no Asokan edict at the site, but there is evidence of Brahmi script; the city was fortified in the fourth century BCE, but there is no evidence of brick-built architecture until the second century BCE; there is evidence of exchange with northern India in the form of NBPW and punch-marked coins, but there is also evidence of earlier exchange networks with the presence of semi-precious stones originating from Afghanistan and Gujarat. The continuities in the ceramic and structural sequences revealed the persistence of localised traditions, with building materials remaining the same despite the changes in the design of the structures. At Anuradhapura the presence of artefacts such as punch-marked coins, and imported ceramics such as NBPW, have been interpreted by the excavators as evidence of networks of trade and exchange with the cultures of the Ganga Plain. It is interesting to note that this is the same evidence that has been used to identify Mauryan occupation at sites such as Taxila, Pauni, and Sonkh, all of which are located outside of the Ganga Plain or 'metropolitan state'. In the absence of an Asokan edict or pillar, these markers are used to identify Mauryan occupation at sites when in fact it is just as likely that these markers are evidence of trade and exchange networks, as in the case of Anuradhapura.

6.3 Evidence of Empire and Religion

Having reviewed the publications on the case study sites above, and the analysis of Lumbini in the previous two chapters, the following sections summarise both the archaeological evidence of

empire, and the evidence of Buddhism from these sites. The case studies that have been presented in this chapter were chosen based on their functions, as well as their locations both within and outside the perceived boundaries of the Mauryan Empire. The key markers of Mauryan occupation as defined in Chapter Three were NBPW, punch-marked and uninscribed cast coins, new ceramic forms such as pear-shaped vases, brick-built architecture, fortifications, ring-wells, drainage, roads, and other trappings of urbanism, but most importantly the Asokan pillars and edicts. As discussed previously, early Buddhist sites are similarly identified based on the textual sources and monumental architecture, most of which are considered to be from the Mauryan period. This review of the evidence will test the validity of this link between the Mauryan Empire and the early spread of Buddhism, enabling the later discussion of Thapar and Smith's models of Mauryan authority in Chapter Seven.

6.3.1 Evidence of Empire

At Lumbini NBPW was found in securely dated contexts alongside localised and long-standing ceramic traditions such as Cord-Imprinted Ware, but urban markers were noticeably absent, presumably due to the nature of the site. The radiocarbon and OSL dated Period IV (Mauryan period) Maya Devi Temple was found to be a timber and wattle-and-daub structure with a brick foundation and terracotta tile roof, in contrast to the preconceived ideas about monumental Mauryan brick architecture. The evidence from the case studies presented in this chapter demonstrates similar inconsistencies between predicted Mauryan features and archaeological remains (Figure 6.13).

The sites of Gotihawa, Kausambi, and Taxila are all marked by Asokan pillars or inscriptions, but exhibit varying levels of monumental architecture and differing artefactual and ceramic assemblages. At Gotihawa it has been shown that the Asokan pillar was coeval with the Mauryan period brick-built *stupa*, based on the thermo-luminescence dating of the bricks rather than the brick size and shape used in the past. Similar to Lumbini, the excavations proved that the occupation of the site pre-dated the Mauryan period by nearly a millennium, dispelling any ideas of a Mauryan foundation of the site. The site of Kausambi is thought to be marked by two Asokan pillars, one of which was later moved to Allahabad. Kausambi was a monumental site, with large-scale fortifications, brick-built architecture, ring-wells, streets, and a large monastic complex within the boundary, but due to the problematic excavation methodology and broad chronological phasing of the site by Sharma, none of this can be securely dated to the Mauryan period. At the site of Taxila,

there is no Asokan pillar but there is an Aramaic inscription that has been attributed to Asoka found in the city of Sirkap (Marshall 1951). In spite of the city's reputation as a seat of power for the Mauryan Empire, Dani has pointed out that there is very little archaeological evidence that can be attributed to the Mauryans (1986: 53). Within the Bhir Mound, there is evidence of brick-built architecture, ring-wells, soakage jars, and streets, and outside the city is evidence of monumental religious complexes, but the dating of these remains is reliant upon the dating of artefacts such as NBPW and the textual sources that describe it as a Mauryan city. In addition, Marshall noted that its streets were "crooked, its houses ill-planned and built of rough rubble masonry in mud" (Marshall 1951: 19f), contrasting with the typical depiction of Mauryan period town planning provided by the *Arthashastra*. Within the religious complexes beyond the city, the only evidence for the dating of the presumed Mauryan Dharmarajika *stupa* is the fact that in the Buddhist text, *divyavadana*, Asoka is referred to as 'Dharmaraja' (Marshall 1951: 234). There is no archaeological evidence linking Asoka to the building of this monument.

Similar to Lumbini, Piprahawa/Ganwaria was both a sacred and a village site, but unlike Lumbini, there is no Asokan pillar to mark the site as Mauryan. The site is believed by some to be Kapilavastu, the capital of the Sakya kingdom, and as such the earliest brick-built phases of the monuments are assumed to be pre-Mauryan. It is then assumed to have been occupied during the Mauryan period and is likely to have been known to Asoka and visited during his pilgrimage, although no pillar or edict remains to mark this visit. The Mauryan phases of the *stupa* are thought to encase an earlier monument enshrining the corporeal relics of the Buddha, and although excavators report underlying brick circumambulation platforms there is currently no scientific dating to support this phasing. At the village site of Ganwaria the structural evidence for the Mauryan period is limited to a single construction phase in each of the large and small structural complexes, and this interpretation is reliant upon analysis of brick size and associated finds of NBPW (Srivastava 1996: 63). There is some evidence of urbanism including terracotta ring-wells and soakage jars, but again this cannot be securely dated to the Mauryan period.

The site of Anuradhapura in Sri Lanka is included in this case study as a control site beyond the perceived borders of the Mauryan Empire, but with textual sources linking the site to the Emperor Asoka and the spread of Buddhism. The site was continuously occupied from the Iron Age through to the eleventh century CE and is a large urban site with monumental religious architecture. The foundations of the Buddhist monuments at the site are thought to date to the Mauryan period as described in the *Mahavamsa*, but more recent development of the monuments has encased these early phases and as yet there is no archaeological evidence that can date them to this period

(Bouzek 1993). Within the citadel changes in the design and plan of the structures of the site were noted to have occurred during the Mauryan period, and the city itself grew in size by around 60%. The building materials, however, did not change during this period with the exception of the introduction of terracotta roof tiles. In the past these changes have been attributed to Mauryan colonisation by association with imported artefacts such as NBPW and punch-marked coins (Allchin 1990), but more recent excavations at the site support the notion of a parallel urbanisation taking place in the southern regions of South Asia, and an increase in trade with the Ganga Plain (Coningham 1999). This is significant as it shows that evidence of urbanisation during this period is not limited to the Mauryan Empire, undermining in turn the use of urbanisation in general as a Mauryan 'marker'.

The common thread at all of these sites is the use, in past investigations, of NBPW and punch-marked coins as indicators of Mauryan occupation, and more specifically of imperial presence. At Kausambi, both NBPW and punch-marked coins have been recognised as being pre-Mauryan, with their origins dating back to the sixth century BCE. However, as described in Chapter Three, the excavation methodology used at sites such as Kausambi has tied archaeological phasing to the presence or absence of 'key' ceramics such as NBPW in the archaeological sequence, and used these ceramics to assign chronological dates. This has resulted in single phases covering up to 700 years at a time, regardless of construction and occupation activity or alternative sources of dating evidence. This 700 year-long presence of NBPW covers significant changes in the production of NBPW, including up to six different fabrics, multiple colours, and varying quality. The long history and variability of NBPW at sites within the Ganga Plain is identified with the pre-Mauryan period much more so than the Mauryan period. In fact, it has been noted that during the Mauryan period the quantity and quality of NBPW diminishes considerably (Roy 1983; Verardi 2007; Singh 2008). As described in Chapters Four and Five, recent excavations at the sites of Lumbini and Gotihawa have demonstrated that the tradition of NBPW extends back as far as the twelfth century BCE with the identification of Proto-Northern Black Polished Ware. This further extension of the chronological span of NBPW again highlights the inadequacy of using the ceramic as a marker of Mauryan occupation. However, at sites outside this region the long chronology and variability is overlooked and the ceramic has become one of the primary indicators of Mauryan occupation. At Taxila, a site within the perceived boundaries of the Mauryan Empire, but outside the Ganga Plain, NBPW is considered to date to the third century BCE and is representative of Mauryan occupation (Sharif 1969: 13). This date for NBPW is not based on the dating of the associated archaeological material from Taxila, but on the assumption that NBPW did not leave the Ganga Plain until the Mauryan period, although Erdosy has suggested that it may in fact have reached Taxila shortly after its

Gangetic origin in the sixth century BCE (1995: 105). The idea that NBPW was linked to the Mauryan expansion in the North West was championed by Wheeler on the basis of the excavations at Charsadda and Udegram but it is not entirely clear where the idea first arose or on what evidence it was based (Roy 1983: 95). This is not to say that NBPW was not in use throughout the Mauryan period, but the problems summarised here demonstrate its unreliability in identifying Mauryan occupation alone. Similar arguments can be made for the use of punch-marked and uninscribed cast coins as Mauryan markers, which have been dated from the sixth to the second century BCE, and it is generally accepted that these coins were issued by bankers, guilds and other local bodies rather than by an imperial authority (Thapar 2000: 476).

In summary, the evidence from the case studies in this chapter is not indicative of a strong imperial presence or control at these sites. Instead, many of the markers that are thought to identify Mauryan occupation are in fact characteristic of urbanisation, which has come to be associated with Mauryan expansion. Most of these urban features pre-date the Mauryan period in the Ganga Plain and therefore cannot be used as evidence to support Mauryan occupation. However, there was an increase in urbanisation in many parts of the Subcontinent during the Mauryan period, as seen at Anuradhapura, but this cannot be directly linked to imperial influence. Based on the archaeological evidence it is more likely that this is the result of parallel urban development and inter-regional contact and exchange. In spite of the problems with the long chronology of NBPW and punch-marked coins, it is widely accepted that they originated in the Ganga Plain. It is suggested here therefore that their presence at sites across the Subcontinent is not an indication of imperial control or Mauryan expansion, but more likely of trade and inter-regional contact.

6.3.2 Evidence of Religion

As described in Chapter Three the markers generally used to identify Buddhism are intrinsically linked to markers of the Mauryan Empire. As demonstrated in Chapter Five and above however, these markers are flawed and most of the archaeological identification of Mauryan occupation at early Buddhist sites, such as Bodh Gaya, Sarnath, and Sanchi, is tenuous at best (Shaw 2013). The evidence from Lumbini has shown that localised traditions existed alongside and evolved with new and possibly imported technology, providing a better understanding of the complexities and diversity of the regional culture and therefore of the Mauryan period. This distinct regional identity demonstrated at Lumbini has made the identification of early Buddhism at Lumbini difficult, as all of the archaeological 'markers' of early Buddhism are based on the presumption of Mauryan as being

brick-built and monumental. Apart from Anuradhapura, all of the other case studies in this chapter identify the earliest archaeological evidence of Buddhism based on the presence of monumental brick-built architecture. As discussed in Chapter Five, the recent excavations at Lumbini have demonstrated that the Mauryan period Temple was not brick-built and indeed was not the earliest structure to delineate the space. This evidence highlights and undermines the narrow definitions that are used to identify both Mauryan occupation and early Buddhism.

It is assumed that there is a pre-Mauryan foundation in the *stupa* at Piprahawa as described by Mukherji (1901) and Srivastava (1996), but there has been no scientific dating of these remains to confirm this theory. According to the textual sources, the Ghositarama monastery at Kausambi was established in the sixth century BCE as a retreat for the Buddha and his followers (Sharma 1960: 26; 1969), but again there have been no excavations below the brick horizon at the site to explore this. Although textual sources such as the *Mahavamsa* describe the introduction of Buddhism to Sri Lanka as a state sponsored gift, the evidence of early Buddhist patronage recorded in cave and rock shelter inscriptions indicate widespread patronage by various noble and royal families (Coningham 1995: 232). These inscriptions are dated between the third and first century BCE and can be used to highlight the discrepancies between the narrative of the chronicles and the material record, as the epigraphic evidence suggests that the practice of donation to the *sangha* became well established during this period by numerous royal families and nobles. The development and spread of Gandharan Buddhism has been the subject of numerous studies, but very little is known about early Buddhism in the region. The monuments at Taxila are thought to date to the Mauryan period, but there is no archaeological evidence to support this early date. The Dharmarajika *stupa* has been tenuously linked to the Emperor Asoka based entirely on the fact that Asoka has been referred to as Dharmaraja in the Buddhist work, *divyavadana* although again, there is no archaeological evidence to support this link (Marshall 1951: 234). The site of Gotihawa represents the only site in this chapter with clear evidence of a Mauryan period Buddhist monument. The pillar and adjacent *stupa* were both founded during this period and can be scientifically dated as such. There is evidence of pre-Mauryan occupation at the site, but there is nothing in Verardi's report to suggest that there is continuity in the delineation of sacred space from pre-Mauryan phases.

The evidence of these case studies and of Lumbini indicates that very little is known about Mauryan period architectural and artefactual 'markers', and therefore they are not reliable identifiers or indicators of early Buddhism. As indicated in the case studies above and in the evidence from Lumbini discussed in Chapter Five, brick-built monumental architecture both pre-dates and post-dates the Mauryan period at a number of sites, and alternative architectural materials have been

identified in the Mauryan period Temple structure at Lumbini. The only site at which a Mauryan period foundation of a Buddhist monument has been identified and proven using these architectural markers is the site of Gotihawa. However, this was identified as Mauryan based on the scientific dating of the bricks and not through the brick size as has been used at many other sites. In fact, the recent excavations at Gotihawa have provided further evidence that there was no standardisation of brick size and shape in the Mauryan period (Verardi 2007). Taxila's Buddhist monuments remain undated beyond an unproven link to textual sources, and the texts themselves have been undermined by the evidence of contradictory inscriptions at sites such as Anuradhapura. At all other case study sites, the Mauryan phases of the monuments have not been excavated, or the dating of these monuments has been reliant on markers such as NBPW. Whilst it is widely accepted that Buddhism pre-dates the Mauryan period (Bechert 1991: 2005), archaeological methodology has remained reliant upon the recognition of Mauryan markers in order to identify early Buddhist sites. The evidence summarised above demonstrates that an alternative methodology for the investigation of early Buddhism is necessary.

6.4 Conclusions

The evidence summarised in this Chapter and throughout this thesis demonstrates that the indicators currently relied upon to identify both Mauryan occupation and early Buddhism are unreliable, and too limited to successfully investigate either the spread of Buddhism, or the archaeology of the Mauryan Empire. Perhaps the best example of this is to be found in the evidence from Lumbini, where excavations have demonstrated that the brick-built foundations of the Mauryan period Temple are a phase, but not a horizon in the sequence, and the analysis of Chapters Four and Five of this thesis prove a ceramic continuity, corresponding with this structural continuity, that extends back into the sixth century BCE.

The review of case studies presented in section 6.2 demonstrates that although in South Asia it is common practice to excavate through the perceived brick horizon at urban sites in order to build complete sequences, this practice does not extend to Buddhist sites, or indeed to religious sites in general. This is in part due to the textual bias inherent in the archaeology of Buddhism and ideas of monumentality described in Chapter Two. The cultural and ritual continuities highlighted at Lumbini demonstrate the need for change in excavation methodologies, as well as in the interpretation of the link between the Mauryan Empire and the spread of early Buddhism.

The problems in artefactual and relative dating techniques described throughout this thesis, and in particular in the case studies above, indicate that a re-evaluation of site phasing and periodisation methodologies is necessary. This is particularly noticeable in the review of the evidence for the use of NBPW as a period marker. The problems caused by an over-reliance on a ware with such a long history, and its regional, typological and quality variations over time are particularly highlighted by the analysis of ceramics at Lumbini in Chapter Four, in comparison with the example of Kausambi in section 6.2.3 above.

In addition, this chapter has demonstrated that the 'Mauryan markers' defined in Chapter Three are based on Gangetic urban archaeology, and are not necessarily useful indicators outside this region. The use of NBPW as an indicator of Mauryan occupation outside the Ganga Plain is not compelling enough to demonstrate imperial presence, but is useful as an indicator of inter-regional contact and exchange. This last point will be made particularly relevant in the final chapter. As discussed in Chapter Three, the Mauryan Empire has been thought to have been a large, territorially bounded, and centrally administered state. The textual sources highlight the spread of Buddhism by the Emperor Asoka, and subsequent histories of Buddhism have emphasised this spread through an authoritative and tightly-controlled Mauryan Empire. Given the fragmentary and varied nature of the Mauryan Empire in the archaeological record, and demonstrated in this thesis, the success of a top-down spread of Buddhism by this method appears questionable. As such, an alternative mechanism for the spread of Buddhism should be explored in both Mauryan and pre-Mauryan periods, and can be justified with reference to the continuity of religious spaces and material culture at both Lumbini and Piprahawa. Work by Monica Smith and Romila Thapar has produced two new theories of Mauryan administration, both describing a more culturally diverse and loosely knit empire. The final chapter of this thesis will consider whether these models are supported by the evidence presented so far, or whether an alternative model might be required.

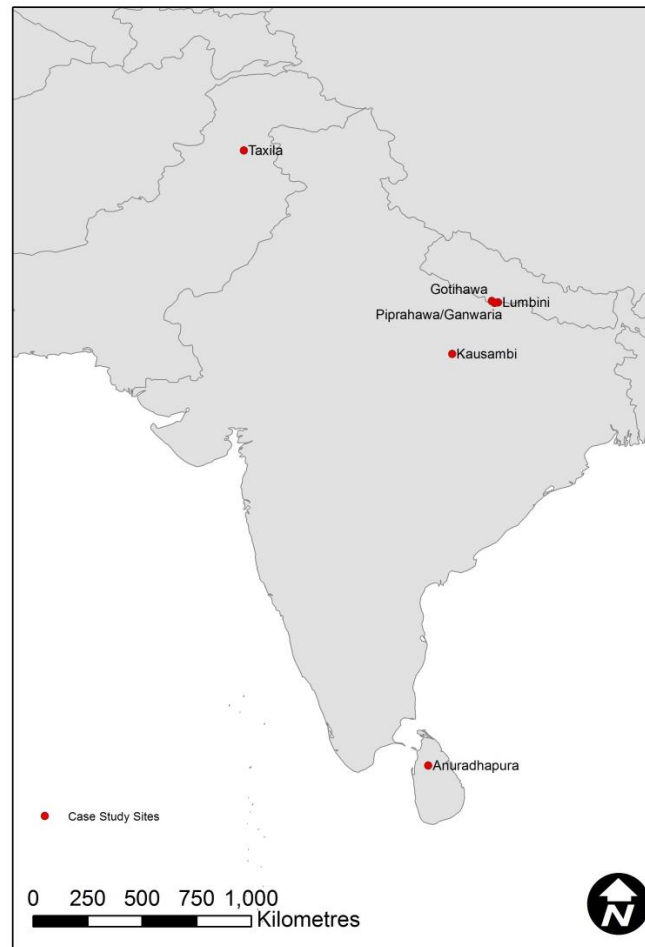


Figure 6.1. Map depicting case study sites mentioned in this chapter.

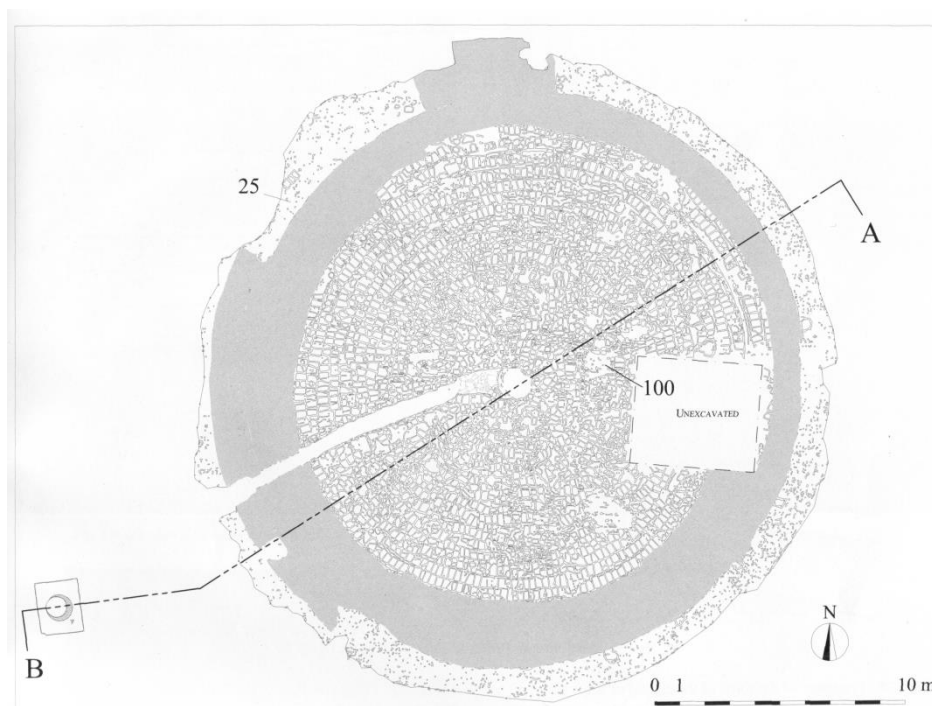


Figure 6.2. Plan of Mauryan stupa at Gotihawa (from Verardi 2007: 105).

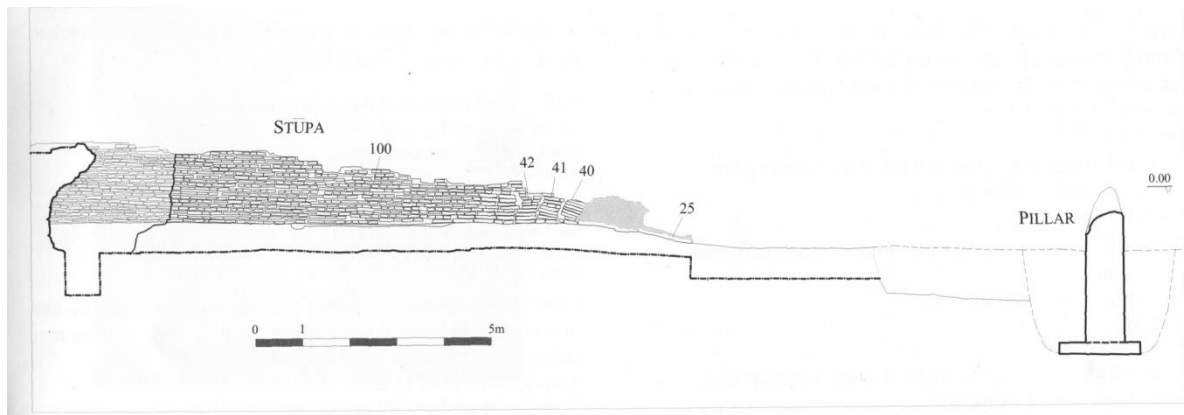


Figure 6.3. Section of Mauryan stupa and Asokan pillar at Gotihawa (from Verardi 2007: 205).

Bricks	Width	Height	Thickness
Rectangular coursed bricks 1	10.5	30.5	6
Rectangular coursed bricks 2	13	30,5	6
Rectangular 1	14	18.5	5.5
Rectangular 2	14.5	19.3	5.5

Figure 6.4. Table of rectangular bricks from Gotihawa stupa, highlighting the variation in brick size (from Verardi 2007).

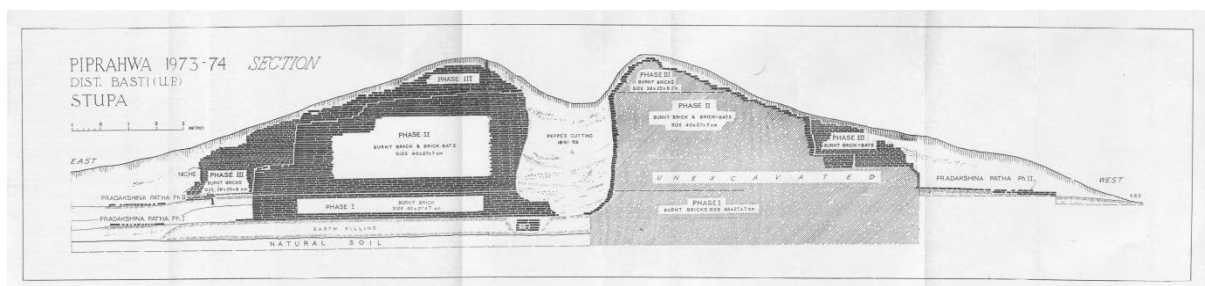


Figure 6.5. Section of Piprahwa stupa in Uttar Pradesh, India (from Srivastava 1996).

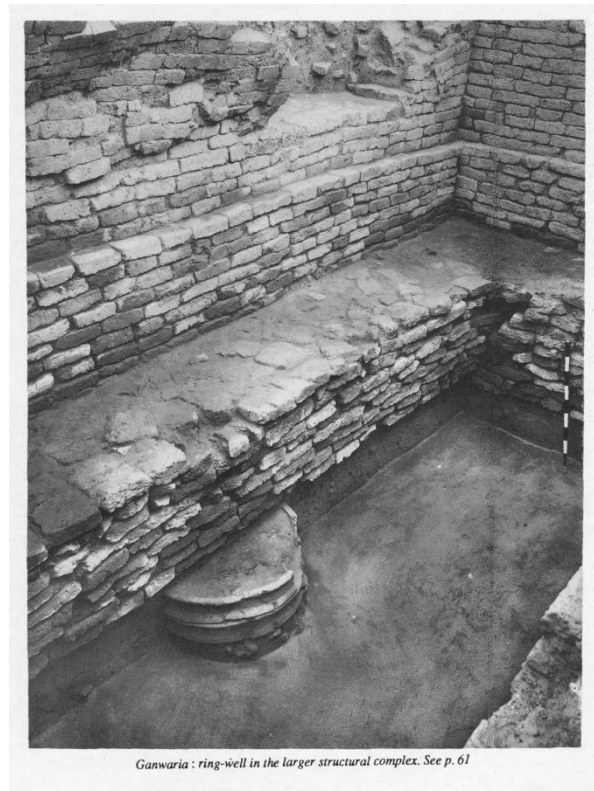


Figure 6.6. Photo of brick structures and terracotta ring-well from Ganwaria, Uttar Pradesh, India (from Srivastava 1996: Plate XXXIII).

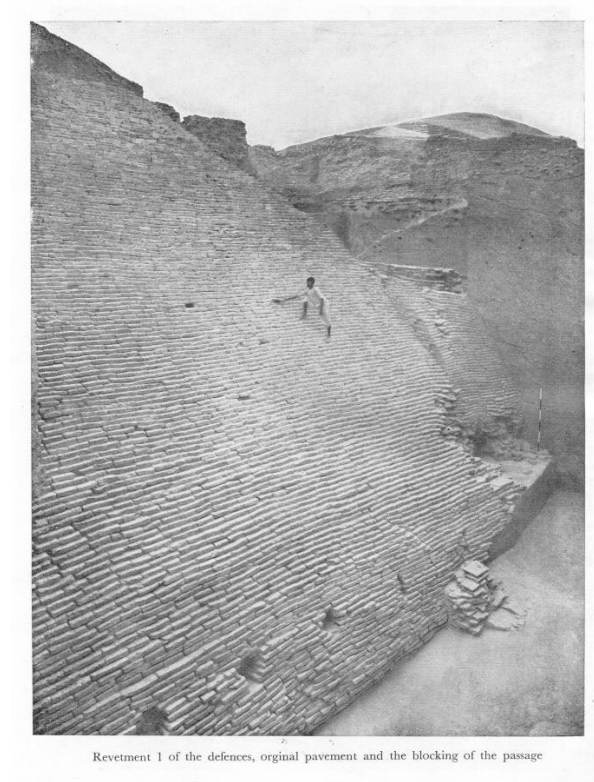


Figure 6.7. Photo of the brick rampart at Kausambi, Uttar Pradesh, India (from Sharma 1960: Plate 14).

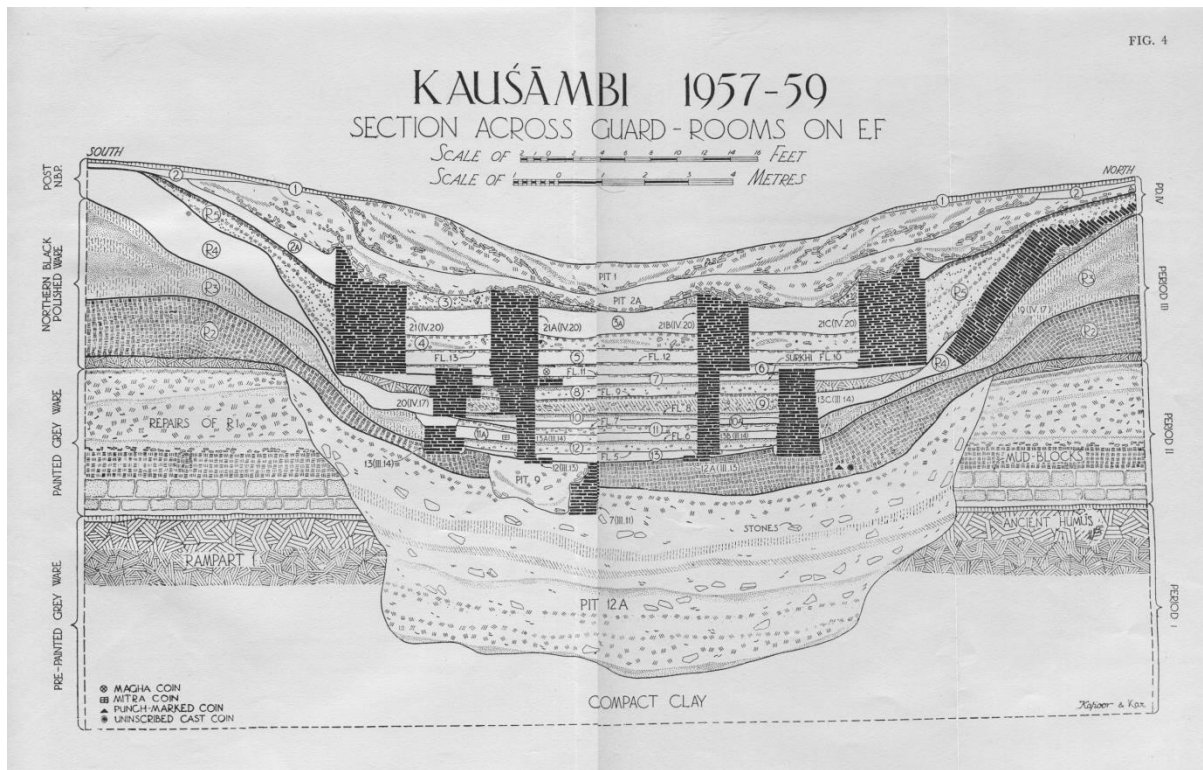


Figure 6.8. Section across guard rooms at Kausambi. Note that the section has been divided up into periods based on ceramic wares (from Sharma 1960).



Figure 6.9. The Asokan pillar at Allahabad in 1900, thought to have originally been located at Kausambi

(Image source

http://www.columbia.edu/itc/mealac/pritchett/00routesdata/bce_299_200/ashoka/allahabad/allahabad.html)

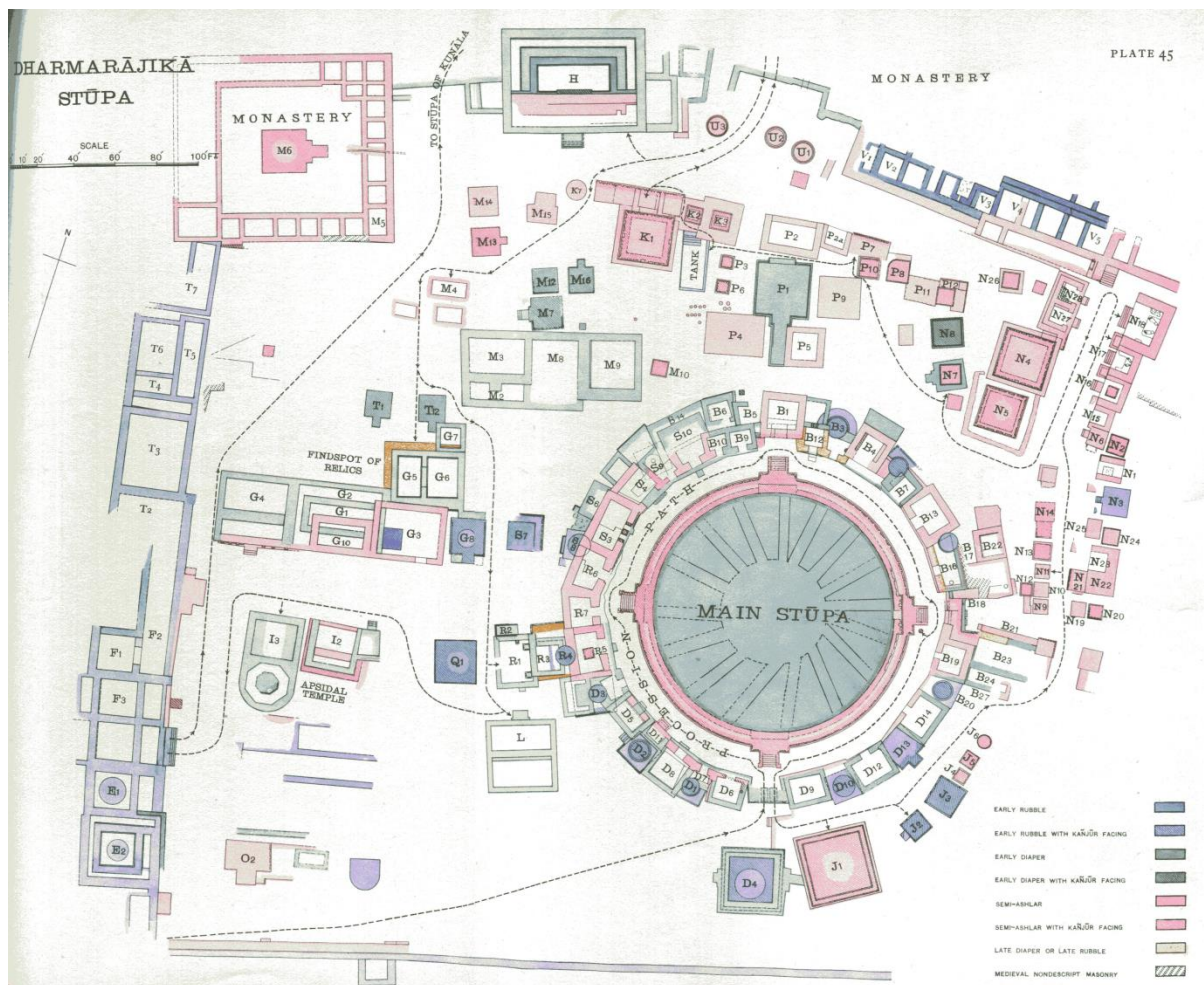


Figure 6.10. Marshall's plan of the Dharmarajika stupa and complex at Taxila (from Marshall 1951: Plate 45).

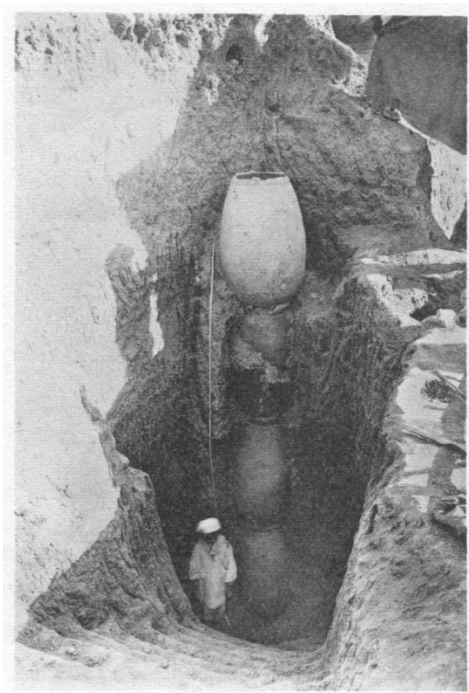


Figure 6.11. Photo of soakage jars in the Bhir Mound at Taxila (from Marshall 1951).

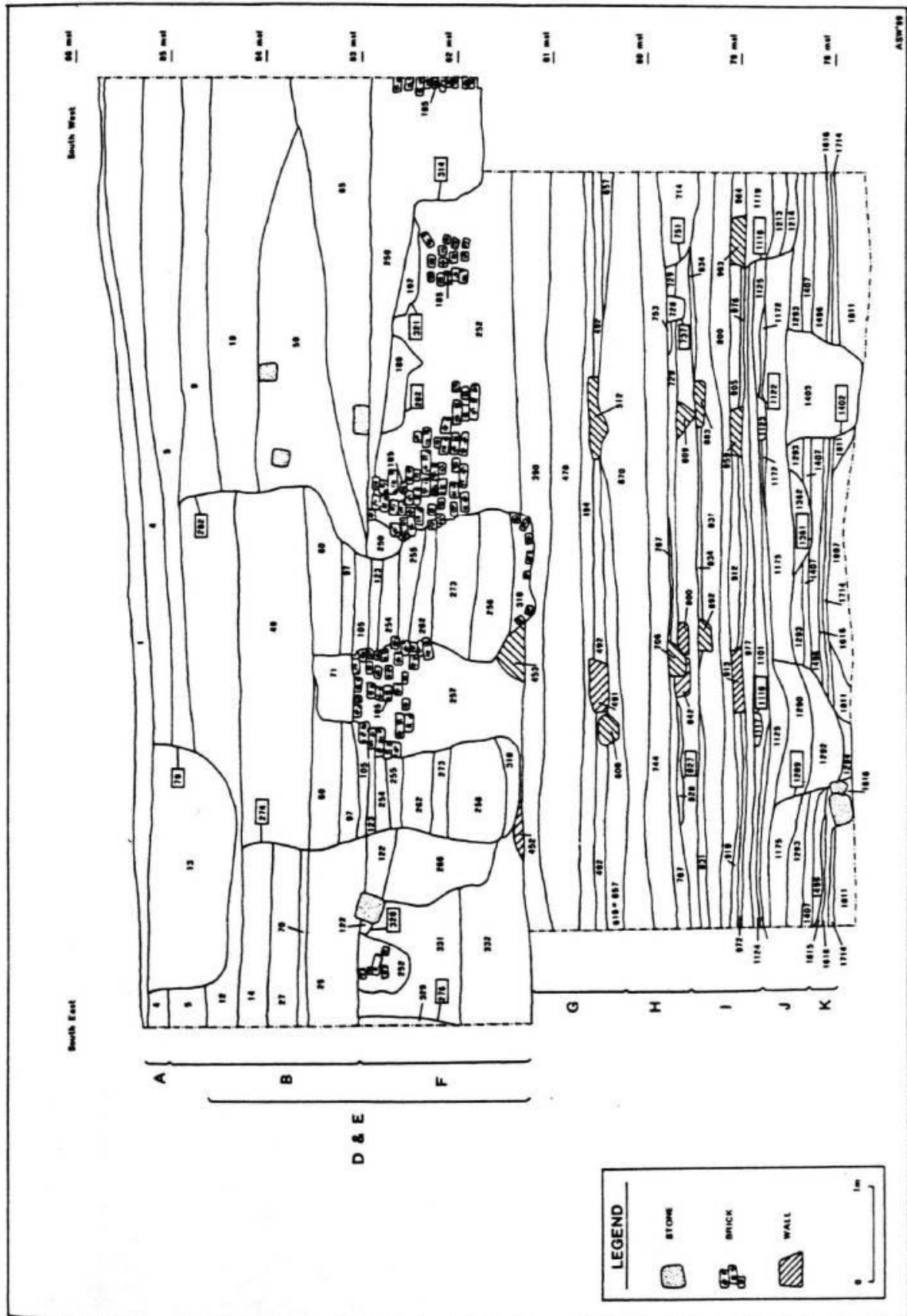


Figure 6.12. South section of ASW 2 at the citadel at Anuradhapura, Sri Lanka (from Coningham 1999: 87).

	Lumbini Period IV (third century BCE)	Gotihawa (third century BCE)	Tilaurakot (third century BCE)	Piprahawa/ Ganwaria Period II (600- 200 BCE)	Kausambi Period III- NBPW (605-45 BCE)	Taxila (Bhir Mound)	Anuradhapura (structural period I)
Asokan edict	x	x			x	x	
Fortifications			x		x	x	x
Brick-built Architecture	x	x	x	x	x	x	
Ring-wells, drains			x		x	x	
Terracotta figurines			x		x	x	
NBPW	x	x	x	x	x	x	x
Punch-marked and uninscribed cast coins			x	x	x	x	x
Buddhist monuments	x	x	x	x	x	x	x

Figure 6.13. Table of presence or absence of 'Mauryan markers' from all of the case study sites mentioned in this chapter.

Chapter 7:

Conclusion

7.1 Introduction

Chapters Four and Five of this thesis presented an assessment of past methodologies employed to identify Buddhist archaeology and evidence of Mauryan period occupation, and the use and reliability of certain archaeological 'markers'. The conclusion of this assessment was that the absence of 'typical' Mauryan material culture at Lumbini demonstrates that not only are these markers flawed, but that there might not be any standardised markers of the Mauryan period, as one might see if the Empire was as territorially bound and centrally administered as has been described in the past.

Chapter Six further tested these markers against the published materials from a range of sites across the Subcontinent and Sri Lanka, in order to determine their reliability at both urban and other sacred sites apart from Lumbini, and to establish whether Lumbini might be a unique case. Once again, the conclusion of this analysis was that the markers were unreliable indicators of Mauryan period occupation, of imperial presence, and of early Buddhism. However, the analysis does indicate that although NBPW may not be used to demonstrate Mauryan imperial presence outside the Ganga Plain, its identification may be used to indicate inter-regional contact and exchange. Furthermore, given the fragmentary and varied nature of the assemblages at these sites there is no evidence of imperial material culture being imposed across the Subcontinent, and therefore no evidence of a top-down spread of Buddhism by the Mauryan Empire aside from some of the rock edicts and inscriptions. In the light of this comparison of the traditional 'markers' of Buddhism and the Mauryan Empire against the data from a range of sites, the objective of this chapter is to determine whether or not the evidence supports the models of the Mauryan Empire proposed by Thapar and Smith, and to identify problems or absences within these models.

7.2 Modelling the Mauryan Empire

Chapter One of this thesis presented a brief review of various archaeological models and studies of empire, including recent assessments of the Achaemenid and Aztec Empires. As well as the problems

of relying on textual sources for modelling imperial influence and infrastructure, this review highlighted the incorporation of possible imperial tolerance of local cultures into discussions of regional homogeneity or diversity in material culture. In her review of the study of the Achaemenid Empire, Kuhrt (2001) noted that the administration of the Achaemenid Empire was reliant on the provincial satrapies, overseen by the satrap, a governor who was responsible for the collection of taxes and the maintenance of order. The satrap resided in a palace in the provincial capital, both of which were often the work of the preceding authority, and the take-over of these residences and cities was presumably intended to be a powerful symbolic gesture of the replacement of authority. Below the governor, authority was dependent on local dignitaries, and the political system may in many cases have remained ostensibly similar to pre-imperial control, albeit secondary to the control of the Empire. Kuhrt notes that in spite of an elite imperial presence, and even the occasional forced movement or division of groups by the Empire, many aspects of local culture apparently continued under imperial rule. As well as mid-level political systems, these aspects include regional religious practices, local language, artefact and agricultural production, and artistic styles (Kuhrt 2001). She suggests that the tolerance of these pre-imperial cultural markers was a carefully constructed act of propaganda, and that the replacement of local figures of authority and the destruction of certain religious shrines demonstrates a willingness to intervene and to replace local culture if it went against imperial interests. Similarly, she notes that whilst regional agricultural production appears superficially unchanged in many regions under imperial rule, the system of landholding was tight, and could be turned to enforced labour in direct service to the Empire when required. Björn Anderson (2010) also noted issues in identifying 'Persian' material culture and expected systems of political control in Achaemenid Arabia, which he points out may be due to both the large areas of the region which remain archaeologically under-investigated, and to the absence of the predicted homogeneity. Both Kuhrt and Anderson indicated that any symbolic advantages involved in imposing a homogenous imperial culture upon the Achaemenid provinces was far outweighed by the difficulties of doing so. Furthermore, as Yoffee (2005) pointed out, tolerating regional cultures which did not actively undermine imperial authority may actually have helped supported it by encouraging loyalty through benevolence, and bringing mutual benefit to both conquered and conquerors (Anderson 2010; Kuhrt 2001; Yoffee 2005).

This model of cultural continuation even under imperial rule is comparable to the evidence discussed and analysed in Chapters Four, Five, and Six of this thesis from Lumbini and the various other sites reviewed within the authority of the Mauryan Empire. As discussed in Chapters Two and Three, several different models have been proposed concerning the character, extent, and administration of the Mauryan Empire. The traditional model is based solely on the textual and

epigraphical data and describes the Mauryan Empire as a centralised and territorially bounded entity with a homogenous cultural package and a unifying ideology (Gelblum 1957; Thapar 1960; 1961; Allchin 1995). In the light of archaeological evidence and further historical evidence regarding the dating and reliability of textual sources, such as the *Arthashastra* (Trautmann 1971; McClish 2012), this model has been replaced by more dynamic models by Thapar and Fussman which allow for regional differences in cultural material within the Empire. Smith has also put forward a non-territorial model of the Empire, based on a network of local control of infrastructure, routeways, and resources, adaptable to supply-and-demand and changing regional conditions and access. Thapar and Smith's models are tested below against the data analysed and reviewed within this thesis, to determine whether either model can be justified by the archaeology. This examination is not intended to address all models of state formation, but to test current models of administration on a micro-level using recent and published archaeological data, and to re-evaluate the ways in which we define and identify Mauryan occupation and culture, in particular at early Buddhist sites.

Thapar's metropolitan state model breaks the Empire into three different parts: the metropolitan state, the core regions, and the peripheral regions. In this model the core regions act as regional centres or provinces, such as Gandhara and Ujjain which were already established as administrative or exchange centres, and the peripheral regions are those that are primarily rich in some natural resources which were used to supply the core areas and the metropolitan state (Thapar 2000: 465). A large part of the Peninsula and some parts of the northern Subcontinent would have constituted peripheral regions in the Mauryan Empire. The metropolitan state itself was likely a kingdom or *Mahajanapada* such as Magadha, which then expanded and took over neighbouring kingdoms or city-states. This metropolitan state model is not based on ritual or ideological control, or on the agency and initiative of the people in these different regions, it is merely the control by the single state over the territory claimed, but the form of control would vary based on the resources being tapped and the administration involved in obtaining these resources and revenues (ibid.). Within this model, Thapar acknowledges that the culture and traditions of the Empire would vary from region to region, but also holds fast to the notion that the cultural norm of the Mauryan Empire was essentially the culture of the Middle Ganga Plain and therefore the ruling elite would have shared or been aware of a common culture, language, and to some degree religion, all deriving from the metropolitan state (ibid.: 483).

In some ways, Monica Smith's networks model is very similar to Thapar's metropolitan state, as both are tearing down the notion of a culturally homogenous and centrally administered state. However, Smith goes one step further and challenges the notion of a territorially or geographically bounded

state altogether. In Thapar's model, the Mauryan Empire was still defined by the territorial limit of the Asokan edicts and the descriptions in the *Arthashastra* and Megasthenes' *Indica*, whereas Smith factors in the lack of archaeological evidence of state-level infrastructure by proposing a model based on corridors and nodes of exchange, and local or regional influence. The Asokan inscriptions have served as markers for drawing the 'borders' of the Empire, and the historical impact of Asoka as a religious leader has solidified the idea of a large territorially bounded Mauryan polity (Smith 2007: 842f). Excavations at sites such as Kumhrar have uncovered substantial structures, but in general the archaeological evidence is at odds with the manner, extent and effectiveness of state-level control and bureaucracy of the Mauryans (ibid.: 843).

In both of these models, Buddhism has been removed almost altogether from the equation, despite the previously demonstrated hegemonic link between Asoka and the spread of early Buddhism. However, it is clear from the archaeological evidence that during this Mauryan period there was either an increase in the construction of Buddhist monuments across South Asia or a change in the building materials and therefore the archaeological visibility of these monuments. The fact that Mauryan 'markers' such as NBPW and punch-marked coins are found in the lowest excavated brick-levels of Buddhist sites such as Lumbini (Mishra 1996; JBF 2001) and Piprahawa (Srivastava 1996), is also significant. If Thapar and Smith have removed Buddhism and the idea of a unifying ideology from the Mauryan Empire, then the correlation between Mauryan 'markers' and Buddhist sites must be reconsidered.

7.2.1 Evidence of the Metropolitan State

According to Thapar's metropolitan state model the cultural norm of the Mauryan Empire is essentially that of the Middle Ganga Plain, with the core and peripheral regions of the state retaining their own regional traditions and culture. However, according to Thapar the ruling elite of those regions should share a common cultural identity, language, and to some extent a religion (ibid.: 483). In addition to this common culture, the core regions would have functioned as centres of control and therefore should have evidence of administrative infrastructure. At sites within the metropolitan state such as Pataliputra and Kausambi there is some evidence of large-scale public works projects such as the fortifications around the cities, and at Kumrahar the pillared-hall, although none of these features can be securely dated to the Mauryan period. At Taxila, a site of regional administrative control in Thapar's core region, and described in textual sources as one of the main cities of the Empire, there is no clear archaeological evidence of either public or royal

monumental Mauryan architecture, or indeed of any identifiable Mauryan construction (Dani 1986: 53). In theory, Gotihawa, Piprahawa and Ganwaria, and Lumbini should fit into Thapar's periphery sites, as all are non-urban, non-administrative, or religious sites. Excavations at all of these sites indicate Mauryan period occupation and construction of Buddhist monuments such as the *stupa* at Gotihawa and the Maya Devi Temple at Lumbini, but no administrative public works which could be ascribed to the influence of the Empire. Apart from the religious monuments, the only clear evidence of Mauryan period public-works construction at any of these sites appears in the form of the Asokan pillars and edicts.

With regard to the material culture of these sites, the evidence to support Thapar's model is slim. As noted in Section 6.2.4, Marshall reported that Mauryan period arts and craft at Taxila showed influence from the east, particularly in the jewellery, but that this was only noticeable during this period. Before and after this phase the influence was apparently from the west (Marshall 1951: 22). As discussed in Chapter Three, NBPW is a fineware and may be considered an example of elite material culture. The ceramic was found at all the case study sites presented here, although quantities and ratios were not available in the majority of sites. At Gotihawa, late NBPW is reported to have made up to 35 percent of the assemblage during the Mauryan period, but the quantities identified at Lumbini and reported at Piprahawa were meagre.

Overall, the archaeological evidence available from Lumbini and the case study sites in Chapter Six cannot be used to support Thapar's metropolitan state model. The archaeological evidence for administrative control by the Mauryan Empire is weak at all sites, including those in the central area represented by Kausambi and similar sites such as Pataliputra. Similarly there is little evidence to support the idea of a shared material culture beyond the Ganga Plain apart from the presence of NBPW, which recent excavations and radiocarbon dates from Lumbini, Gotihawa, and Ayodhya indicate may have a history of use dating back to at least 1000 BCE, if not earlier (Verardi 2007; Singh 2008; Coningham and Acharya 2013). The fineware also demonstrates significant regional and qualitative variability during the Mauryan period, as noted in Chapters Three and Four. Thapar's model is flexible enough to accommodate for regional variations of both administrative control and material culture, but on the strength of the archaeological evidence available, it is not a model which can at present be proved either right or wrong.

7.2.2 Evidence of Smith's model

In light of the absence of archaeological evidence for centralised Mauryan administration and infrastructure, Monica Smith's network model predicts a series of Mauryan nodes connected by routeways or corridors designed to efficiently control or exploit resources and exchange. This model is deliberately flexible in order to accommodate changes in routeways and demand. Smith implies that these networks develop organically based on resources, demand, and pre-existing regional networks and they may have been utilised and maintained as required by the Mauryan Empire.

This model is again comparable with the 'landscape' model of the Achaemenid Empire's authority in Arabia put forward by Björn Anderson (2010). As described above, according to the texts and histories of the Achaemenid Empire, imperial authority was communicated through the system of provincial satrapies. The satrapies were connected by a system of roads guarded by soldiers, and marked with way-stations at daily intervals intended for use only by travellers with sealed authorisation (Kuhrt 2001; Anderson 2010). Both Kuhrt and Anderson have pointed out that the system of satrapies was limited in some instances by problems of communication caused by the physical environment, such as in the Zagros Mountains, and that in these cases greater independence was granted to apparently mutual benefit. Anderson has framed his argument with regard to the problems caused by the landscape of Arabia, noting that "while the Achaemenid kings may have counted Arabia among their holdings, in actual fact they only controlled a small percentage of the region in any direct sense, turning to alternative strategies for the remainder." (Anderson 2010: 445). In place of a territorial model of Achaemenid authority in Arabia, Anderson argues for a 'landscape' model which takes into account the various problems of both operating in the desert, and in exerting military control over a territory. He has suggested instead that the Empire made use of treaties and friendships with local groups in order to exert influence over key points in a pre-existing route network, determined by access to essential resources such as water and wells (Anderson 2010). He also notes that such an arrangement would have been beneficial to both the Empire and to local merchants, and may be evidenced by the well recorded presence of Arabian merchants in Persia, and that similar arrangements were made with the Seleucid Empire in the fourth century BCE (ibid.: 452). The indication is that such a model is not only theoretically viable, but that it may have been employed by various empires when either scale or problems caused by terrain made tight control impractical. Given both the topographic variety of the northern Subcontinent and the scale of the Mauryan Empire, or rather in this case the breadth of its authority, the problems depicted by Anderson and Kuhrt seem equally applicable to the examples of both the Achaemenid and the Mauryan Empires.

Smith does not provide any prediction of what her network model might look like in the archaeological record, but it may be inferred that an empire such as this would not be culturally homogenous, but that there would be areas where cultural material from the origin of the Mauryan authority (Ganga Plain) might be more concentrated than in neighbouring areas. Smith notes that these nodes are connected by routeways which may be marked by way stations, as mentioned in the Asokan edicts and in the edicts and pillars themselves (ibid.). The evidence from Lumbini and the case study sites of Chapter Six lend support to this network model. The continuity of regional traditions of material culture alongside the introduction of imported goods and technology at all sites, suggests connections between sites, but not complete control by an external authority. The changes in the technology and design of material culture that have been noted at Lumbini, Taxila, Gotihawa, and Anuradhapura during this period reflect this increased contact and exchange. In spite of the changes in the archaeological record during this period, it is the continuities in the design of ceramics such as Cord-Impressed Ware at Lumbini and Gotihawa, and the architectural materials at Lumbini and Anuradhapura that reveal the limits of imperial control and influence beyond the Ganga Plain.

7.2.3 Summary

It is clear from the case studies of the previous chapter and the evidence from Lumbini that the Mauryan 'markers' that have been used in the past are too limited and one-dimensional, and that the material culture of the Mauryan period is far more varied and regional than has been previously recognised or acknowledged. In spite of the problems with the long chronology of NBPW and punch-marked coins, it is widely accepted that they originated in the Ganga Plain. It is therefore suggested here that their presence at sites across the Subcontinent is not an indication of imperial control or Mauryan expansion, but more likely of trade and inter-regional contact, lending support to Smith's network model.

Smith's model depicts the Mauryan Empire united by a flexible administration network, and appears justifiable by comparison with the archaeological evidence. One aspect that is notably absent from both Thapar and Smith's models however, is the role of religion within the Mauryan Empire. As this thesis has demonstrated, there is an intrinsic link between the identification of early Buddhism and the identification of the Mauryan Empire. This link is based on the textual and epigraphical sources that place Asoka as the propagator of Buddhism and agent of change during this period. However, the continuity in both the structural and artefactual sequence at Lumbini contradicts this

interpretation. The evidence from Lumbini suggests that Buddhist practice and the delineation of sacred spaces predates Mauryan construction, and cannot be identified using Mauryan markers alone. The evidence from Anuradhapura also demonstrates that textual sources written in later periods do not record the very early history of Buddhism, but present a refined narrative at odds with the archaeological evidence (Coningham 1995). There is little doubt that in a period of growing urbanisation and trade across the Subcontinent, Gangetic material culture such as NBPW, as well as heterodoxical religious sects such as Buddhism and Jainism spread very quickly. The link between these factors however, remains unclear.

What seems to be required is a means of modelling the parallel, and potentially disconnected development of the spread of Buddhism, both using and facilitating the growth of a Mauryan Imperial network. This model also requires greater emphasis placed on the role played by trading networks. It has been well established through the work of H.P. Ray and others that the *sangha* played an important role in the facilitation of exchange and commerce in South Asia. Ray suggests that this was responsible for the growth of Buddhism at the same time as the rapid growth of urban centres across the Subcontinent (Ray 1994; 2012). Ray identified that the popularity of Buddhism among the merchants of South Asia was in part a reaction against the Brahmanical constraints placed on them during this period. This popularity can be seen in the epigraphical records of donations and patronage of monks by merchants, guilds, goldsmiths, potters, and weavers in Sri Lanka (Paranavitana 1970; Coningham and Young in press). Ray's work has also begun to remove Asoka as the central figure and force behind the spread of Buddhism in the Early Historic period, by examining ideas of urbanisation and the socio-economic climate.

In spite of this the spread of Buddhism is not accounted for in existing models of the Mauryan Empire. Thapar clearly states that the metropolitan state model is not based on ritual or ideological control, or on the agency or initiative of individuals (2000: 465). Whilst it allows for variation in material culture it does not allow for alternative mechanisms of influence outside the authority of the state. Smith's model is more flexible in allowing for alternative mechanisms of communication and influence, and as such allows for the possibility of Buddhist networks enabling the spread of 'Mauryan' or Gangetic material culture, rather than a Mauryan expansion functioning as the propagator of Buddhism. The analysis and review of evidence presented by this thesis suggests however that neither Thapar nor Smith's model is entirely satisfactory in anticipating or recognising the evidence of alternative mechanisms for the spread and propagation of early Buddhism alongside parallel networks of trade or administration in the Early Historic period.

7.3 Routeways of Religion and Empire

In a recent publication, H.P. Ray once again asserts the importance of counterbalancing the descriptions of the administrative structure of the Mauryan Empire in the texts with the available archaeological evidence. She states, “this is crucial, since in the absence of a discussion of the channels of communication and control, the general notion that has gained ground is the primacy of the state as the agent of change” (Ray 2012: 67). However, as has been made clear throughout this thesis, there is no clear evidence of imperial presence aside from the pillars and inscriptions at any of the case study sites in this thesis. Instead the archaeological evidence appears representative of contact, trade, and urbanism. There is, however, evidence of Buddhism at all of the sites discussed in this thesis. As described in Chapter Three, the ‘positive model’ for the propagation of early Buddhism argues for the dual process of the emergence of the religion from increasing urbanisation, which in turn encouraged further urbanisation because it provided the means of legitimisation for non-Brahmin elites, such as merchant and traders, who then facilitated the spread of Buddhism across South Asia and beyond (Shaw 2013). As there is very little evidence to support state control over religious channels of communication in the Early Historic period, it has long been recognised that merchants and traders played a large role in facilitating the development and spread of Buddhism, with donative inscriptions found in Sri Lanka and the Subcontinent (Ray 2012: 67; Coningham 1999). In addition, there is evidence of inter-regional trade in the pre-Mauryan period as can be seen in the artefactual assemblage from ASW 2 at Anuradhapura.

It is argued here that the unifying factor in this process was the network of routeways which developed through the travels undertaken by Buddhist monks and nuns, rather than by officials of the Mauryan Empire (Ray 2012: 69). An effective trading network requires, by definition, a network of routeways linking resource areas with entrepôts and nodal points of market trade. These routeways require regular traffic and maintenance in order to ensure that they are capable of supporting the efficient, affordable, and secure movement of large quantities of goods. For security and trade advantage, these routes will often incorporate pre-existing local or regional networks of trade and communication. As trade develops and grows, so too does the route network, in order to support greater traffic. Similarly, pilgrimage requires a known and maintained route network, in order to direct and support the movement of pilgrims (Smith 2005). Increasing urbanisation enables the housing and support of increasing numbers of merchants and pilgrims, whose travel between these nodal points in turn encourages their movement, and further urbanisation, in the same manner of development as that seen in a gravity network model (Knappett et al. 2008). Donation and patronage by merchants and pilgrims supporting settlement along the route can further secure

the use and maintenance of these routeways. It is suggested therefore that the routeway through Vaisali, Rampurva, Gotihawa, and Lumbini is likely to represent part of a pre-Mauryan network used by both merchants and pilgrims, which was later marked by the Asokan edicts and monuments, and through the construction and maintenance of the wells and waystations along the route, as described in the *Arthashastra*. Coningham and Young have argued for the same point, noting that the erection of the Asokan pillars would have required the exploitation of pre-existing and reliable infrastructure for the transport of these pillars from Chunar, where they were quarried, to their designated sites (Coningham and Young: in press). They further note the timber jetty at Kaveripattinam in Tamil Nadu (Smith 2006), and timber wharf on the River Krishna at Dharanikota as examples of an investment in trade infrastructure in this period (ibid.). Chakrabarti has also stated that the Asokan pillars and edicts should not be taken as representative markers of Mauryan imperial territory, but as indicators of regional and social culture (Chakrabarti 2010). The hypothesis supported by this thesis is that the Asokan pillars do not indicate Mauryan construction of the routeways, but examples of political propaganda by Asoka and the Mauryan Empire, along a maintained, but pre-existing religious and trade network subsumed and absorbed into the imperial infrastructure.

It may prove possible to identify further examples of investment in routeways and trade infrastructure by excavation of potential waystations along the recorded and predicted routeways. Based on the assessment of the ceramic and artefactual assemblages of Lumbini and the comparative case study sites in this thesis, as well as the review of Smith's network model, it is suggested that these waystations are likely to contain edicts, regularly maintained and rebuilt wells, limited and individual examples of urban forms, and small quantities of Gangetic assemblages. They are unlikely, however, to contain any of these in significant quantities, and certainly not the full assemblage of period indicators, which may have prevented their identification or period dating in the past. Further excavation and absolute dating of sequences at known sites and potential waystations in an effort to identify pre-Mauryan remains may also determine the origins and extent of these routeways and networks. Following the publication of the Durham-led UNESCO excavations, the site of Rampurva is due to be re-excavated by the ASI, and it will be of interest to note whether this investigation supports the argument for pre-Mauryan network origins.

It remains to be seen whether Asoka and the Mauryan Empire were the propagators of Buddhism, or simply the later sponsors of an existing and widespread religious movement. It would seem however, based on the assessment of this thesis, that although the Mauryan Empire utilised a secure network infrastructure for the maintenance and movement of imperial authority, the Empire was

not the territorial authority traditionally espoused, and is likely to have exploited pre-existing trade and religious route networks for its own purposes. These networks can be traced by the movement and spread of luxury artefacts such as NBPW and coinage, and the comparative assemblage evidence of Anuradhapura and Taxila now indicates that these artefacts are indicators of trade, rather than the imperial authority previously assumed. Similarly, the development of urban forms at sites occupied in the Mauryan period appears to represent a trend of urbanisation found across the Subcontinent, rather than being indicative of occupation by an imperial authority. The only examples of Mauryan construction which can reasonably be identified by period without absolute scientific dating appear to be the edicts and pillars which refer explicitly to Asoka or to Mauryan imperial authority, or are referred to in the textual narratives.

It seems likely therefore that the spread of early Buddhism may owe more to the movement and growth of trade in pre-Mauryan, and Mauryan period but non-imperial urbanisation trends, than to Asoka or the Empire itself. The proof of this hypothesis will lie in the excavation of pre-Mauryan sequences beyond the 'brick horizon', which the evidence of this thesis suggests cannot be reliably dated to the Mauryan period, and in the separation of the study of the textual narratives from archaeological interpretation and methodology.

7.4 Review of Thesis Aims and Objectives

The aim of this thesis has been to test the scholarly and physical evidence for the 'Mauryan horizon' that has affected archaeological methodology in South Asia, by demonstrating challenges in the interpretation of the relationship between the Mauryan Empire and the spread of early Buddhism.

The 'Mauryan horizon' is a conceptual boundary represented in archaeological scholarship by what is assumed to be Mauryan period brick-built architecture, which marks the limit of excavation at Buddhist sites. The preservation of this architectural horizon has resulted in a lack of archaeological investigation into the development of early Buddhism. This state of affairs has been shaped by the primacy of monumentality and conservation in South Asian historical studies. The horizon has been re-enforced by the textual sources, edicts, and pillars which identify the Mauryan Emperor Asoka as the central figure in the development and spread of early Buddhism and the construction of monumental Buddhist architecture. Based on these epigraphical and textual sources the Mauryan Empire was believed to be a large and centrally administered territorial Empire with its extent marked by the distribution of the Asokan edicts (Gelblum 1957; Thapar 1960; Allchin 1995). The non-

excavation of Buddhist sites below this brick horizon has meant that there is little archaeological evidence to either confirm or refute this assumption, and has tied the identification of Buddhist sites to the identification of Mauryan period occupation. The re-evaluation of this horizon and subsequent state of affairs required the examination of a number of themes, which were broken down, for the purpose of this thesis, into six linked objectives. These objectives are laid out for review below.

Objective One: *to review the existing literature and identify the key themes and trends in the history of Buddhist textual scholarship and the archaeology of Buddhism, highlighting the intrinsic link between the two disciplines.*

Chapter Two of this thesis summarised the development of textual and archaeological scholarship in South Asia from the seventeenth century to the present. The review was structured around the evolution of three key themes within scholarship: a textual bias inherent in the archaeology of Buddhism; a focus on monumental architecture; and the central role of the Emperor Asoka and the Mauryan Empire in the propagation of early Buddhism. This review demonstrated that an early reliance by western scholars on the translation of South Asian historical texts developed, in the absence of systematic and scientific archaeological methodologies, into an archaeological bias towards the locating and conservation of monumental architecture. This focus on conservation was institutionalised at the start of the twentieth century in the Ancient Monuments Preservation Act of 1904. The bias towards architecture and monumentality has been particularly true in the case of religious monuments, which became a key part of modern national identity following the rise and success of independence and nationalistic movements in the twentieth century.

These themes are particularly visible in the example of Lumbini. The site was rediscovered and identified in the late nineteenth century based on the study of textual narratives and a locative, architecturally biased archaeological methodology. Subsequent archaeological and conservation activities throughout the twentieth century have transformed the ruins into an archaeological park, clearing the site and rebuilding and reconstructing the monuments based on hypotheses inferred from textual sources rather than archaeological observations.

Objective Two: *having established the primacy of the textual sources in the archaeology of Buddhism, to review the way in which Asoka and the Mauryan Empire have been portrayed as the propagators of Buddhism in the textual sources and studies from the past century, and explore alternative perspectives such as Romila Thapar's metropolitan state model and Monica's Smith's networks model.*

As mentioned above, one of the three key themes of Chapter Two addressed the central role of the Emperor Asoka and the Mauryan Empire in the development and spread of early Buddhism in both historical and archaeological scholarship. This portrayal was based on textual narratives such as the *Mahavamsa* and the Chinese pilgrims' accounts as well as the epigraphical evidence of the Asokan edicts themselves. Both European religious prejudice in the nineteenth century for Buddhism against Brahmanism, and nationalist political sentiment in the early and mid-twentieth century, helped elevate the role of Asoka and the Mauryan Empire towards becoming a central figure in South Asian history. As well as appearing almost single-handedly responsible for the spread of Buddhism across the Subcontinent, Asoka is now almost inevitably linked with early urbanisation. This dual role has also helped tie the two processes together in archaeological scholarship, further reinforcing the Mauryan Horizon.

In spite of this, archaeological evidence of the Mauryan Empire is sparse, and understanding of the Empire, its management and organisation is surprisingly thin. Chapter Two addressed the development of archaeological models of the Mauryan Empire and its authority in the twentieth century, and Chapter Three expounded upon two particular models by Romila Thapar and Monica Smith. Thapar's metropolitan state model hypothesises that the Empire comprised a series of core and peripheral regions outside the area of the Mauryan 'metropolitan state' itself. The core regions, she suggests, administered control of regional territories on behalf of the state, whilst peripheral areas were subject only to nominal control, supplying goods and resources to core regions and the central state. In this model, only the ruling or administrative elite would have shared a common culture, language, and religion, whilst the rest of the region would exhibit varying levels of cultural heterogeneity according to local traditions and imperial influence. Smith's model differs by playing down the concept of authoritarian territorial control, and hypothesises that the 'Empire' may in fact have comprised a network of Mauryan-held nodal sites exploiting local resource bases, connected by imperially maintained routeways. This model is designed for administrative flexibility, allowing for tight control of key local areas and looser control in areas of contemporary unimportance, and for the evolutionary restructuring of

this network as resources became available, replaced, or exhausted, or as corridors of communication were created, threatened, and broken. Smith does not discuss the impact of this model on material culture, but it may be inferred that material culture shared with the central authority of the Mauryan Empire is likely to be seen in large quantities only at 'nodal' sites, rather than with any homogeneity across the region of the Empire. Both models offer useful insights, but until now have gone untested against archaeological evidence.

Objective Three: *having reviewed the history of Buddhist textual and archaeological research and the implications for subsequent interpretation, to identify the typical archaeological markers of Buddhism and the Mauryan Empire.*

Chapter Three described the way in which 'markers' of Mauryan period occupation and Buddhism have been used to identify sites related to the period and religion, as well as the problems associated with this methodology. Markers noted for Mauryan period occupation included urban features such as brick-built architecture, fortifications, ring-wells, drainage, and roads; 'elite' artefacts such as NBPW and new ceramic forms such as pear-shaped vases, or punch-marked and uninscribed cast coins; and most importantly the Asokan pillars and edicts, found across the Empire and used in scholarship to define the territorial limits of the Mauryan Empire. It was explained that markers of Buddhism are hard to define, since material expressions of religion, and Buddhism in particular, have changed significantly over time, and the early history of Buddhist sites remain largely unexcavated and under-investigated. Consequently the typical markers of Buddhism are limited to religious monuments such as *stupas*, *viharas* and Asokan pillars, or have been related to indications of Mauryan period occupation because of the previously described historical link between Asoka and the spread of Buddhism. Chapter Three also described some of the archaeological problems and issues of unreliability in using these markers, such as the long periods of use for ceramics such as NBPW.

Objective Four: *having defined the typical archaeological ‘markers’ used to identify both Buddhism and the Mauryan Empire, to compare these anticipated markers with the archaeological evidence from Lumbini.*

Chapter Four presented a wide array of evidence from both the 2011-2013 UNESCO/Durham University excavations at Lumbini, and published data from previous excavations of the site, and Chapter Five comprised a detailed study of this evidence to test the presence, absence, and reliability of the typical archaeological markers of Buddhism and of Mauryan period occupation at the site of Lumbini. The evidence included the typological and statistical analysis of the 147,253 ceramic sherds from the 2011-2013 excavations. The Asokan pillar and inscription at Lumbini indicate the importance of the ritual site to both early Buddhists and to the Mauryan Empire, providing a good case study for both the archaeological signatures of the Mauryan period, as well as those of early Buddhism. The conclusions of this study were that the ‘typical markers’ of the Mauryan period are difficult to see at Lumbini, and that markers for Buddhism are not useful in identifying early Buddhism in the archaeological record.

It is evident that Lumbini has been one of the most important sites of Buddhist pilgrimage since at least the third century BCE, but the excavations at Lumbini indicate that it is not possible to identify early Buddhism at the site; that the *stupas* and *vihara* that have in the past been identified as Mauryan cannot be reliably dated to that period; and that there was no sudden dynastic introduction of material culture and architecture at Lumbini in the Mauryan period. This absence of both Mauryan and early Buddhist markers in the material culture at Lumbini indicates that these markers are flawed, but it was noted that the site’s ritual and religious nature may represent a unique example, and that further testing should be done against a wider variety of site types and locations.

Objective Five: *having explored the discrepancies between the archaeological evidence from Lumbini and the anticipated markers of Buddhism and the Mauryan Empire, to compare these markers against archaeological data from other sites in South Asia, specifically Gotihawa, Piprahawa/Ganwaria, Kausambi, Taxila, and Anuradhapura, in order to determine the existence or otherwise of a ‘Mauryan Horizon’.*

Chapter Six reviewed the collated published archaeological data from a range of sites across South Asia, and an assessment of the presence or absence of the same ‘typical’ Mauryan and early

Buddhist markers at these sites. The sites were chosen to represent locations ranging in distance from the central region of the Mauryan Empire in the Ganga Plain to Anuradhapura in Sri Lanka, beyond the limits of Mauryan authority, and covering both ritual and administrative type sites. Once again, the analysis of this data indicates that although some markers were identified at each site, the assemblage of markers was too unpredictable for these 'markers' to be used to identify either Mauryan occupation or early Buddhism. It was also noted that many of the markers themselves are undermined by problems of identification and relative phasing, and cannot be relied upon for accurate dating of associated contexts.

Furthermore, many of the markers thought to identify Mauryan occupation across South Asia were seen to be based on Gangetic urban archaeology, and noted as not necessarily being useful indicators outside this region. Their presence at sites such as Anuradhapura indicates that some of these markers are in fact characteristic of a phase of urbanisation common across South Asia in the period referred to as the 'Mauryan period', which whilst probably unrelated to the Empire has come to be associated with Mauryan expansion. Brick architecture, in particular, was identified in contexts likely to date both before and after the Mauryan period, but use of relative dating and phasing methodologies means that these brick 'horizons' have been ascribed without due scientific process to the Mauryan period. Similarly, the use of NBPW as a chronological marker has resulted in potentially extremely large dating and phasing errors because of both the ceramic ware's long history of use within and beyond the Ganga Plain, and its notable regional variability.

The conclusion of this analysis must be that these indicators are unreliable, and therefore that archaeological methodology in relation to these themes is currently too limited to successfully investigate either the spread of Buddhism, or the archaeology of the Mauryan Empire. The balance of evidence indicates that further cultural continuities such as those identified in the artefacts, ceramics, and architecture at Lumbini are likely to exist at other early Buddhist sites across South Asia, but have yet to be identified, because of the limiting conceptual boundary of the so-called 'Mauryan Horizon'. Excavation through the brick horizons at a range of sites, as well as the widespread use of absolute dating, will almost certainly demonstrate further flaws in relative dating and phasing methodologies currently used in South Asian archaeology, and prove that the Mauryan brick horizon represents little more than a convenient historical narrative.

Objective Six: *having tested the ‘markers’ of Buddhism and the Mauryan Empire against a range of sites, to determine whether or not the evidence supports the models of the Mauryan Empire proposed by Thapar and Smith, and to identify problems or absences within these models.*

Chapter Seven has included a discussion of both Thapar and Smith’s hypothetical models of the Mauryan Empire, in the light of the archaeological analysis of a range of Mauryan period sites, including the prime example of Lumbini. In spite of some cultural flexibility deliberately included in Thapar’s model, it would appear that the Metropolitan State model cannot be proven by the archaeological evidence. Like Thapar’s hypothesis, Smith’s model can be used to explain the continuity of local culture alongside coeval introduction of Gangetic artefacts, wares, and styles, but is a more effective model for explaining the significant variation of assemblages between sites, even within regions identified by Thapar as the metropolitan state or core areas. This variability appears indicative of a highly flexible and adaptable network infrastructure, rather than a tightly controlled, albeit hierarchically variable system of territories. However, it was emphasised that both models fail to account sufficiently for the two-way influence and role of free trade and religion, especially Buddhism, in the development, organisation, and maintenance of this network model. A new model is likely to be required in order to account for both independent mercantile agency and religious movements in the evolution of communications, exchange, and authoritarian networks.

7.5 Conclusions

The thesis presented here has examined the history of the ‘Mauryan horizon’, its origins in South Asian scholarship, and the archaeological evidence for and against its physical existence, as well as the impact it has had upon the archaeological interpretation of early Buddhism and the Mauryan Empire.

Aside from the Asokan pillars there is very little evidence of indisputably imperial Mauryan architecture, public works, sculpture, or material culture. In the absence of such evidence, the evolution of South Asian archaeological methodology has seen ‘markers’ of a Mauryan presence assigned to architectural features, technology, and material culture based on the presumption of Mauryan occupation and a reliance on textual sources. The analysis presented in this thesis has demonstrated that, regardless of the quality of archaeological investigation, these ‘markers’ are unreliable indicators of a Mauryan presence. The presence of NBPW does not necessarily indicate Mauryan occupation, and the absence of brick-built architecture does not mean that a structure was

necessarily pre-Mauryan. This has been demonstrated in both the structural sequences and artefactual assemblages from Lumbini, and with reference to case studies of previous excavations at Gotihawa, Piprahawa/Ganwaria, Kausambi, Taxila, and the Sri Lankan site of Anuradhapura.

These methodological flaws make it difficult to identify either Mauryan period occupation, or consequently early Buddhist archaeology, which remains intrinsically linked by current archaeological and historical theory to the Mauryan Empire. It now appears that the archaeology of the Mauryan Empire is at odds with the historical narrative, and scholars such as Fussman, Thapar, and Smith have proposed alternative models for the administration of the Empire. Smith's model of a networked infrastructure for the Mauryan Empire, unencumbered by territorial boundaries, is supported by the archaeology reviewed and analysed by this thesis. However, the necessary separation of Mauryan period archaeology from the identification and interpretation of early Buddhism indicates that Smith's model requires adjustment in order to accommodate for the non-Mauryan, and indeed non-authoritarian spread of both free agent mercantile activity, and for the spread of religious networks of donation and pilgrimage which likely predate and exist independently of the Mauryan Empire.

7.6 Significance of Thesis and Implications for Future Research

The relationship between the Mauryan Empire and the spread of early Buddhism is not a novel subject in South Asian scholarship, and has been examined by historians and archaeologists alike for over a century, but what this thesis has done is to examine this relationship on a micro-scale. Using the archaeological data from the 2011-2013 UNESCO/Durham University excavations of Lumbini, the thesis has presented the primary analysis of ceramic and artefactual typologies and sequences, architectural materials, and a comparison of the archaeological sequences of these excavations to the collated evidence of previous investigations of the site. The thesis has also proved that the evidence from Lumbini is not a unique anomaly by comparing this site to an assessment of five other case study sites across the Subcontinent. The work has demonstrated that the identification of early Buddhism is entirely reliant on the textual sources and the identification of inherently flawed Mauryan markers in the archaeological record. This state of affairs is the result of both the institutionalisation of textual sources in the study of early Buddhism, and the monumentality of the brick and stone architectural horizon in South Asia.

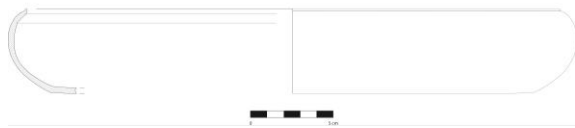
The recent excavations at Lumbini have offered archaeologists a unique opportunity to excavate below the brick horizon at one of the most important sites of Buddhist pilgrimage, both in the present and in the past. The results of these excavations have sparked numerous debates in South Asian scholarship which will hopefully result in investigations of other Buddhist sites and the re-evaluation of the identification of the Mauryan Empire in the archaeological record. From a theoretical standpoint it would be ideal to be able to address some of the issues of neglect within the archaeology of Buddhism, such as the archaeological visibility of women in Buddhism, the role of the individual and the recognition of agency, the politics of identity, and the social life of objects and material culture. However, it is first necessary to address some of the larger overarching narratives that have shaped the way in which the archaeology of Buddhism, and archaeology in general have been studied in South Asia. By changing the way in which archaeologists identify Mauryan period occupation at sites and by looking for continuities in the archaeological record, more light may be shed on the archaeological visibility of early Buddhism and the relationship between religion and empire, as well as enabling the investigation of other issues of neglect in the discipline.

The comparison of recent models of Mauryan authority by Thapar and Smith with a range of archaeological evidence presented in this thesis has demonstrated that although Smith's network model is supported by current archaeological data, and is comparable to current discussions of other similar historical empires, it may yet be improved by the inclusion of alternative agents of change. It has been suggested here that these agents should include both religion and trade, which currently feature only as passive cultural factors in the existing model. The continued investigation of alternative areas of occupation between urban sites, and at sacred sites below the monumental 'brick horizon' currently limiting excavation, may shed more light on the evidence of the spread of Buddhism and other religions, and on the development of trade networks and routeways, which can be used to inform the construction of this multiple agent model.

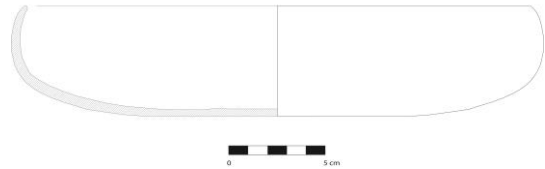
Appendix A: Illustrations of Ceramic Forms from Lumbini

Tableware

Thali



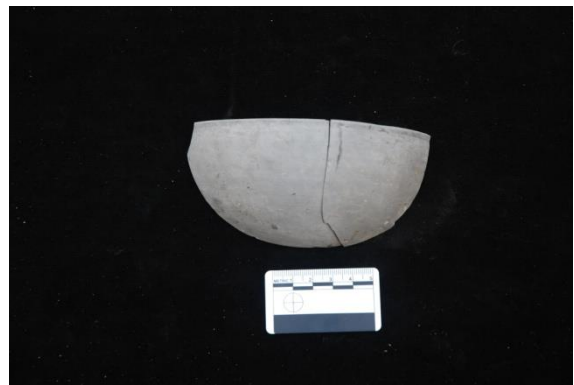
SF 11569



SF 1311

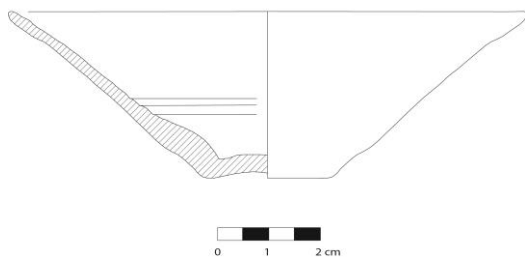


SF 1311



SF 8812

V-shaped Bowl



SF 1072



SF 1072

Shallow open Bowl (with convex base)



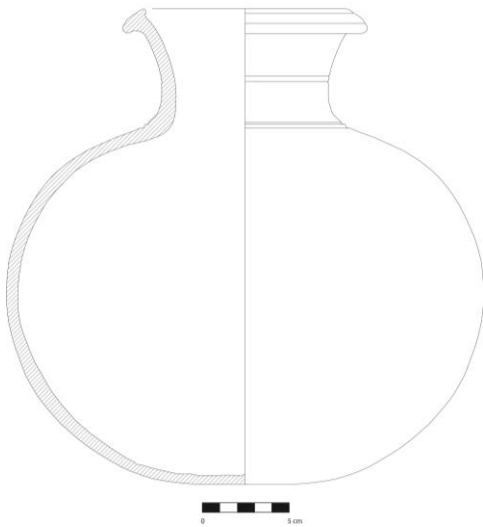
SF 1093



SF 1093

Storage Vessels

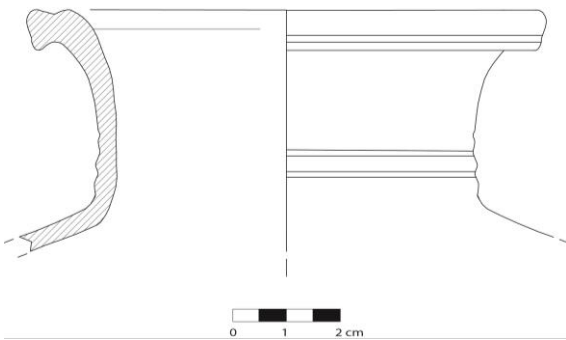
Upright ghara and mataka forms



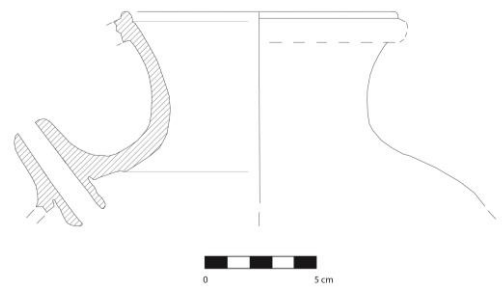
SF 1538



SF1066

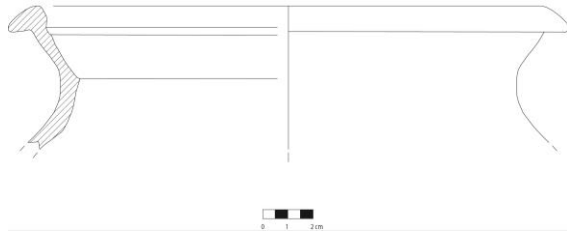


SF 2689



SF 1068

Globular Jar

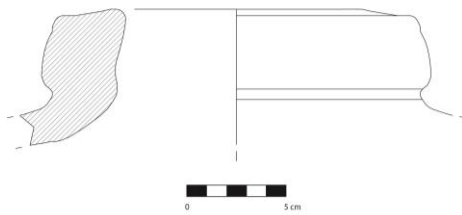


SF 2692



SF 2690

Form Y



SF 2682



SF 2682

Small upright Jars (Lota)



SF 2696



SF 2696

Small Globular Jars

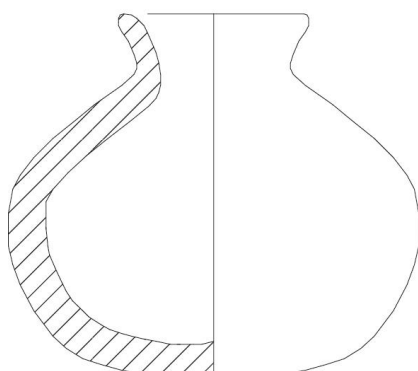


SF 2713

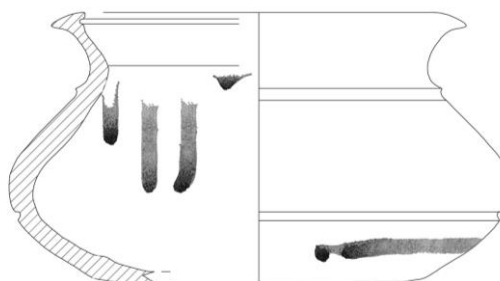


SF 2720

Small vases (Katiya)



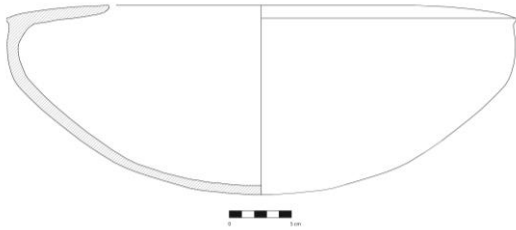
SF 1552



SF 2701

Cooking Vessels

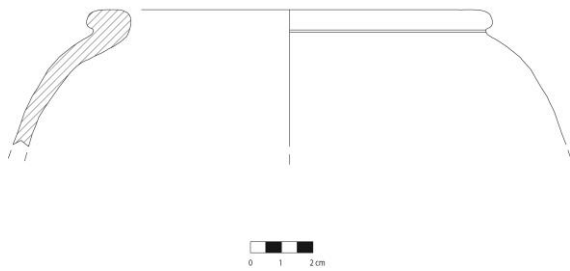
Closed Mouth Vessel/Handi



SF 6088



SF 6088



SF 2700



SF 2700

Basins (Handi)

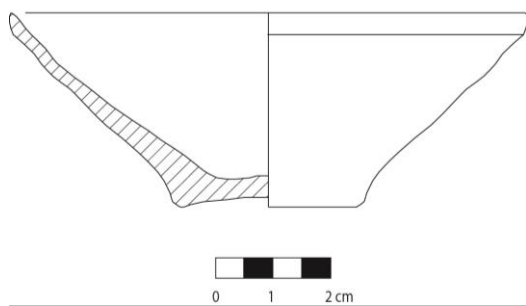


SF 2266



SF 2647

Oil Lamps



SF 2705



SF 2705

Bibliography

- ALBINSKI, H. S. 1958. The Place of Emperor Asoka in Ancient Political Thought. *Midwest Journal of Political Science*, 2, 62-75.
- ALCOCK, S. E., D'ALTROY, T. N., MORRISON, K. D. & SINOPOLI, C. M. (eds.) 2001. *Empires*, Cambridge: Cambridge University Press.
- ALLCHIN, F. R. 1982. How Old is the City of Taxila? *Antiquity*, 56, 8-14.
- ALLCHIN, F. R. 1990. Patterns of City Foundation in Early Historic South Asia. *South Asian Studies*, 6, 163-174.
- ALLCHIN, F. R. 1995. Mauryan Architecture and Art. In: ALLCHIN, F. R. (ed.) *The Archaeology of Early Historic South Asia*. Cambridge: Cambridge University Press.
- ALLCHIN, F. R. 1995. The Mauryan State and Empire. In: ALLCHIN, F. R. (ed.) *The Archaeology of Early Historic South Asia*. Cambridge: Cambridge University Press.
- ALLEN, C. 2002. *The Buddha and the Sahibs*, London, John Murray.
- ALLEN, C. 2006. *The Buddha and Dr. Fuhrer: An Archaeological Scandal*, London, Haus Publishing.
- ALLEN, C. 2012. *Asoka: The Search for India's Lost Emperor*, London, Little, Brown.
- ALMOND, P. C. 1988. *The British Discovery of Buddhism*, Cambridge, Cambridge University Press.
- ANDERSON, B. 2010. Achaemenid Arabia: A Landscape-Oriented Model of Cultural Interaction. In: CURTIS, J. & SIMPSON, S. J. (eds.) *The world of Achaemenid Persia: history, art and society in Iran and the ancient Near East : proceedings of a conference at the British Museum 29th September-1st October 2005*. London: I.B. Tauris
- ARONSON, A. 1946. *Europe Looks at India: a Study in Cultural Relations*, Bombay.
- BAILEY, G. & MABBETT, I. W. 2003. *The Sociology of Early Buddhism*, Cambridge, Cambridge University Press.
- BAILIFF, I. K., LACEY, H., CONINGHAM, R. A. E., GUNAWARDHANA, P., ADIKARI, G., DAVIS, C. E., MANUEL, M. J. & STRICKLAND, K. M. 2013. Luminescence dating of brick stupas: application to the hinterland of Anuradhapura, Sri Lanka. *Antiquity*, 87, 189-201.
- BANDARANAYAKE, S. 1974. Buddhist Tree Temples in Sri Lanka. In: VAN LOHUIZEN-DE LEEUW, J. E. & UBAGHS, J. M. M. (eds.) *South Asian Archaeology 1973*. Leiden: E.J. Brill.
- BANERJEE, N. R. 1994. The Evidence of Painted Grey Ware and the N.B.P. Ware from Nepal. In: GAUR, R. C. (ed.) *Painted Grey Ware: Proceedings of Seminar on Archaeology held at the Aligarh Muslim University, Aligarh*. Jaipur: Publication Scheme.

- BARBA, F. 2004. The Fortified Cities of the Ganges Plain in the First Millennium BC. *East and West*, 54, 223-250.
- BARUA, B. M. 1968. *Asoka and his inscriptions*, Calcutta, New Age Publishers.
- BASAK, B. 2008. Pataliputra: the Changing Perceptions of a Site. In: SENGUPTA, G. & CHAKRABORTY, S. (eds.) *Archaeology of Early Historic South Asia*. New Delhi: Pragati Publications.
- BASANT, P. K. 2008. Urban Centres in North India in the Sixth Century BC. In: SENGUPTA, G. & CHAKRABORTY, S. (eds.) *Archaeology of Early Historic South Asia*. New Delhi: Pragati Publications.
- BASHAM, A. 2005. Asoka and Buddhism, a Re-examination. In: WILLIAMS, P. (ed.) *Buddhism: Buddhist Origins and the Early History of Buddhism in South and Southeast Asia*. London: Routledge.
- BATCHELOR, S. 1994. *The Awakening of the West: the Encounter of Buddhism and Western Culture: 543 BCE-1992*, London, Thorsons.
- BEAL, S. 1869. *Travels of Fah-Hian and Sung-Yun, Buddhist pilgrims, from China to India [400 and 518 A.D.] translated from the Chinese*, London.
- BECHERT, H. (ed.) 1991. *The Dating of the historical Buddha = Die Datierung des historischen Buddha*, Göttingen: Vandenhoeck & Ruprecht.
- BECHERT, H. 2005. The Date of the Buddha Reconsidered. In: WILLIAMS, P. (ed.) *Buddhism: Buddhist Origins and the Early History of Buddhism in South and Southeast Asia*, London: Routledge.
- BERDAN, F. F., BLANTON, R. E., BOONE, E. H., HODGE, M. G., SMITH, M. E. & UMBERGER, E. 1996. *Aztec Imperial Strategies*, Washington, DC, Dumbarton Oaks.
- BHUJU, U. R., SHAKYA, P.R., BASNET, T.B., SHRESTHA, S 2007. Nepal Biodiversity Resource Book. Protected Areas, Ramsar Sites, and World Heritage Sites. Kathmandu: International Centre for Integrated Mountain Development; Government of Nepal, Ministry of Environment, Science and Technology; United Nations Environment Programme, Regional Office for Asia and the Pacific.
- BIDARI, B. 1998. Kapilavastu, the Ancient Sakya Kingdom in Nepal. *Lumbini: An Annual Publications of the international Buddhist Society, Lumbini, Nepal*, 4, 10-33.
- BIDARI, B. 2002. *Lumbini: A Sacred Haven of Refuge*, Kathmandu, Hill Side Press.
- BIDARI, B. 2004. *Lumbini: a Haven of Sacred Refuge*, Kathmandu, Third Impression.
- BIDARI, B. 2013. Because the Buddha was Born Here. Lumbini in Historical Texts. In: WEISS, K. (ed.). Paris: UNESCO.
- BOPEARACHCHI, O. 2006. Coins. In: CONINGHAM, R. A. E. (ed.) *Anuradhapura: the British-Sri Lankan excavations at Anuradhapura Salgahawatta 2, Vol. 2: the artefacts (British Archaeological Reports international series 1508)* Oxford: Archaeopress.

- BOPEARACHCHI, O. & PIEPER, W. 1998. *Ancient Indian Coins*, Turnhout, Brepols.
- BOUZEK, J. (ed.) 1993. *Ceylon, between east and west : Anuradhapura Abhayagiri Vihara 1981-1984 : excavations and studies*, Prague: Charles University.
- BRANCACCIO, P. A. B., K. (ed.) 2006. *Gandharan Buddhism*, Vancouver: UBC Press.
- BROWN, P. 1956. *Indian Architecture: Buddhist and Hindu Periods*, Bombay, D. B. Taraporevala Sons and Co.
- BURROW, R. 1801. A Proof that the Hindoos had the Binomial Theorem. *Asiatick Researches*, 2, 487-497.
- CALLIERI, P. 1989. *Saidu Sharif I (Swat, Pakistan): The Buddhist Sacred Area, the Monastery*, Rome, Istituto Italiano Per il Medio ed Estremo Oriente.
- CANNON, G. 1964. *Oriental Jones : a biography of Sir William Jones, 1746-1794*, London, Asia Pub. House.
- CHAKRABARTI, D. K. 1982. The Development of Archaeology in the Indian Subcontinent. *World Archaeology*, 13, 326-344.
- CHAKRABARTI, D. K. 1985. The Issues of the Indian Iron Age. In: DEO, S. B. & PADDAYYA, K. (eds.) *Recent Advances in Indian Archaeology: Proceedings of the Seminar held in Poona in 1983*. Poona: Deccan College Post-Graduate and Research Institute.
- CHAKRABARTI, D. K. 1988. *A History of Indian Archaeology: from the Beginning to 1947* New Delhi, Munishiram Manoharlal Publishers.
- CHAKRABARTI, D. K. 1995. Buddhist Sites Across South Asia as Influenced by Political and Economic Forces. *World Archaeology*, 27, 185-202.
- CHAKRABARTI, D. K. 1998. *The Archaeology of Ancient Indian Cities*, Delhi, Oxford University of Oxford Press.
- CHAKRABARTI, D. K. 1999. *India, an archaeological history: palaeolithic beginnings to early historic foundations*, New Delhi, Oxford University Press.
- CHAKRABARTI, D. K. 2010. *The Geopolitical Orbits of Ancient India*, New Delhi, Oxford University Press.
- CHAKRABARTI, D. K. 2011. *Royal messages by the wayside : historical geography of the Asokan edicts*, New Delhi, Aryan Books International.
- CHATTAPADHYAYA, B. D. 2008. Early Historical in Indian Archaeology: Some Definitional Problems. In: SENGUPTA, G. & CHAKRABORTY, S. (eds.) *Archaeology of Early Historic South Asia*. New Delhi: Pragati Publications.
- CHATTAPADHYAYA, R. K. & SANYAL, R. 2008. Contexts and Contents of Early Historic Sites in the South Bihar Plains. In: SENGUPTA, G. & CHAKRABORTY, S. (eds.) *Archaeology of Early Historic South Asia*. New Delhi: Pragati Publications.

- CHAUVERDI, A. A., KHOSROWZADEH, A., MCCALL, B., PETRIE, C. A., POTTS, D. T., ROUSTAEI, K., SEYEDIN, M., WEEKS, L. & ZAIDI, M. 2010. Archaeological Evidence for Achaemenid Settlement within the Mamasani Valleys, Western Fars. *In: CURTIS, J. & SIMPSON, S. J. (eds.) The world of Achaemenid Persia: history, art and society in Iran and the ancient Near East' : proceedings of a conference at the British Museum 29th September-1st October 2005.* London: I.B. Tauris
- CHOWDHURY, S. R. 2008. Pattern of Patronage and Early Buddhist Art or Amaravati. *In: SENGUPTA, G. & CHAKRABORTY, S. (eds.) Archaeology of Early Historic South Asia.* New Delhi: Pragati Publications.
- CONINGHAM, R. A. E. 1995. Monks, Caves and Kings: A Reassessment of the Nature of Early Buddhism in Sri Lanka. *World Archaeology*, 27, 222-242.
- CONINGHAM, R. A. E. 1998. Buddhism Rematerialised and the Archaeology of the Gautama Buddha. *Cambridge Archaeological Journal*, 8, 121-126.
- CONINGHAM, R. A. E. 1999. *Anuradhapura: the British-Sri Lankan Excavations at Anuradhapura Salgaha Watta 2*, Oxford, Archaeopress.
- CONINGHAM, R. A. E., YOUNG, R., SCHMIDT, A. 1999. Archaeological Research at Tilaurakot (Kapilavastu) Nepal: Report and Recommendations of an UNESCO mission UNESCO.
- CONINGHAM, R. A. E. 2001. The Archaeology of Buddhism *In: INSOLL, T. (ed.) Archaeology and World Religion.* London: Routledge
- CONINGHAM, R. A. E. 2005. The Archaeology of Buddhism. *In: INSOLL, T. (ed.) Archaeology and World Religion.* London: Routledge.
- CONINGHAM, R. A. E. & ACHARYA, K. P. 2011. Identifying, evaluating and interpreting the physical signature of Lumbini for presentation, management and long-term protection. Report of the first season of field operations. Kathmandu: UNESCO.
- CONINGHAM, R. A. E. & ACHARYA, K. P. 2012. Identifying, evaluating and interpreting the physical signature of Lumbini for presentation, management and long-term protection. Report of the season of field operations. Kathmandu: UNESCO.
- CONINGHAM, R. A. E. & ACHARYA, K. P. 2013. Identifying, evaluating and interpreting the physical signature of Lumbini for presentation, management and long-term protection. Report of the third season of field operations. Kathmandu: UNESCO.
- CONINGHAM, R. A. E., ACHARYA, K. P. & MANUEL, M. J. 2014. Strengthening the Conservation and Management of Lumbini, the Birthplace of the Lord Buddha, World Heritage Property, Phase II. Kathmandu: UNESCO.
- CONINGHAM, R. A. E., ACHARYA, K. P., STRICKLAND, K. M., DAVIS, C. E., MANUEL, M. J., SIMPSON, I. A., GILLILAND, K., TREMBLAY, J., KINNAIRD, T. C. & SANDERSON, D. C. W. 2013. The Earliest Buddhist Shrine: excavating the birthplace of the Buddha, Lumbini (Nepal). *Antiquity*, 87, 1104-1123.

- CONINGHAM, R. A. E. & BATT, C. 1999. Dating the Sequence. *In*: CONINGHAM, R. A. E. (ed.). *Anuradhapura: the British-Sri Lankan Excavations at Anuradhapura Salgaha Watta 2*, Oxford, Archaeopress
- CONINGHAM, R. A. E. & SCHMIDT, A. R. 2002. Geophysical, Auger, Environmental and Visitor Survey of the Core Zone of the Lumbini World Heritage Site, Nepal. Kathmandu: UNESCO.
- CONINGHAM, R. A. E., SCHMIDT, A. R. & STRICKLAND, K. M. 2011. A Pilot Geophysical and Auger Core Evaluation within the UNESCO World Heritage Site of Lumbini. *Ancient Nepal*, 176, 9-24.
- CONINGHAM, R. A. E. & TREMBLAY, J. 2011. Strengthening the Conservation and Management of Lumbini, the Birthplace of Lord Buddha. UNESCO.
- CONINGHAM, R. A. E. & TREMBLAY, J. 2013. Re-discovering Lumbini. Archaeology and Site Interpretation. *In*: WEISE, K. (ed.) *The Sacred Garden of Lumbini: Perceptions of the Buddha's Birthplace*. Paris: UNESCO.
- CONINGHAM, R. A. E. E. A. 2006. The Anuradhapura (Sri Lanka) Project: the Hinterland (Phase II), Preliminary Report of the First Season. *South Asian Studies*, 22, 53-64.
- COOMARASWAMY, A. K. 1930. Early Indian Architecture: II Bodhigrihas. *Eastern Art*, 2, 225-235.
- COOMARASWAMY, A. K. 1972. *The origin of the Buddha image*, New Delhi, Munshiram Manoharlal.
- COOMARASWAMY, A. K. 2006. *The origin of the Buddha image; & Elements of Buddhist iconography*, Louisville, KY., Fons Vitae.
- CUEPPERS, C. 2013. The Garden of the Gods. Lumbini in Early Buddhist Literature. *In*: WEISS, K. (ed.) *The Sacred Garden of Lumbini: perceptions of Buddha's Birthplace*. Paris: UNESCO.
- CUNNINGHAM, A. 1848. Proposed Archaeological Excavation. *JASB*, XVII.
- CUNNINGHAM, A. 1854. *The Bhilsa topes; or, Buddhist monuments of central India: comprising a brief historical sketch of the rise, progress, and decline of Buddhism; with an account of the opening and examination of the various groups of topes around Bhilsa.*, London, Smith, Elder.
- CUNNINGHAM, A. 1879. *The stupa of Bharut*, London, W.H. Allen & co.
- CUNNINGHAM, A. 1891. *Coins of ancient India from the earliest times down to the seventh century A.D.*, London, B Quaritch.
- CUNNINGHAM, A. 1972[1866]. *Four Reports Made During the Years-1862-1863-1864-1864*. 2 vols, Delhi, Indological Book House.
- DALAL, K. F. 2008. Indian Architecture. *In*: SENGUPTA, G. & CHAKRABORTY, S. (eds.) *Archaeology of Early Historic South Asia*. New Delhi: Pragati Publications.
- D'ALTROY, T. N. 2001. Empires in a Wider World. *In*: ALCOCK, S. E., D'ALTROY, T. N., MORRISON, K. D. & SINOPOLI, C. M. (eds.) *Empires*. Cambridge Cambridge University Press.

- DANI, A. H. 1986. *The Historic City of Taxila*, Tokyo, Centre for East Asian Cultural Studies.
- DANIEL, G. 1962. *The Idea of Prehistory*, Baltimore, Penguin Books.
- DAVIDS, T. W. R. 1880. *Buddhist Birth-Stories or Jantaka Tales*, London, Trubner and Co. .
- DEEG, M. 2003. *The Places Where Siddhartha Trod: Lumbini and Kapilavastu*, Lumbini, Lumbini International Research Institute.
- DEO, S. B. 1968. *Archaeological Investigations in the Nepal Terai: 1964*, Kathmandu, Department of Archaeology, His Majesty's Government of Nepal.
- DEO, S. B. & JOSHI, J. P. 1972. *Pauni Excavation, 1968-70*, Nagpur, Nagpur University.
- DERANIYAGALA, S. U. 1972. The Citadel of Anuradhapura: excavations in the Gedige area. *Ancient Ceylon*, 2, 48-169.
- DERANIYAGALA, S. U. 1986. Excavations in the Citadel of Anuradhapura: Gedige 1984 a preliminary report. *Ancient Ceylon*, 6, 39-48.
- DERANIYAGALA, S. U. 1990. The Proto-and Early Historic radiocarbon chronology of Sri Lanka. *Ancient Ceylon*, 12, 251-292.
- DHARMAPALA, A. 1898. *Journal of the Maha-Bodhi society*, Calcutta.
- DUKA, T. & HUNTER, W. W. 1972. *Life and works of Alexander Csoma de Körös*, New Delhi, Mañjuśrī Publishing House.
- DUTT, S. 1962. *Buddhist monks and monasteries of India : their history and their contribution to Indian culture*, London, G. Allen and Unwin.
- ERDOSY, G. 1987. Early Historic Cities in India. *South Asian Studies*, 3, 1-23.
- ERDOSY, G. 1995. The Prelude to Urbanization: Ethnicity and the Rise of the Late Vedic Chiefdoms. In: ALLCHIN, F. R. (ed.) *The Archaeology of Early Historic South Asia*. Cambridge: Cambridge University Press.
- FACCENA, D. A. G. 1962. *Reports on the Campaigns 1956-58 in Swat (Pakistan)*, Rome, Instituto Poligrafico Dello Stato.
- FALK, H. 1998. *The Discovery of Lumbini*, Lumbini, Lumbini International Research Institute.
- FALK, H. 2006. *Aśokan sites and artefacts : a source-book with bibliography*, Mainz, Von Zabern.
- FALK, H. 2012. The Fate of Asoka's Donations at Lumbini In: OLIVELLE, P., LEOSHKO, J. & RAY, H. P. (eds.) *Reimagining Asoka: Memory and History*. New Delhi: Oxford University Press.
- FEDERATION, J. B. 2001. *Archaeological Research at Maya Devi Temple, Lumbini*, Japan Buddhist Federation.

- FILLIOZAT, J. 1967. *Studies in Ashokan inscriptions*, Calcutta, D. Chattopadhyaya.
- FLOOD, F. B. 2002. Between Cult and Culture: Bamiyan, Islamic Iconoclasm, and the Museum. *The Art Bulletin*, 84, 641-659.
- FOGELIN, L. 2003. Ritual and Presentation in Early Buddhist Religious Architecture. *Asian Perspectives*, 42, 129-154.
- FOGELIN, L. 2006. *Archaeology of Early Buddhism*, Oxford, Alta Mira Press.
- FOGELIN, L. 2007. History, Ethnography, and Essentialism: The Archaeology of Religion and Ritual in South Asia. In: KYRIAKIDIS, E. (ed.) *Archaeology of Ritual*. Los Angeles: University of California.
- FUHRER, A. 1972. *Antiquities of Buddha Sakyamuni's Birth-Place*, Delhi, Indological Book House.
- FUSSMAN, G. 1982. Pouvoir central et regions dans l'Inde ancienne: le probleme de l'empire maurya. *Annales. Histoire, Sciences Sociales*, 37, 621-647.
- FUSSMAN, G. 1988. Central and Provincial Administration in Ancient India: the Problem of the Mauryan Empire. *The Indian Historical Review*, 14, 43-72.
- GAUR, R. C. 1994. The NBP Ware Assemblage & its Relation with the PGW. In: GAUR, R. C. (ed.) *Painted Grey Ware: Proceedings of Seminar on Archaeology held at the Aligarh Muslim University, Aligarh*. Jaipur: Publication Scheme.
- GELBLUM, T. 1957. The Spirit of Asoka. *East and West*, 8, 261-271.
- GERRARD, C. M. 2003. *Medieval Archaeology : understanding traditions and contemporary approaches*, London, Routledge.
- GHOSH, A. 1948. Taxila (Sirkap), 1944-45. *Ancient India*, 4, 41-51.
- GHOSH, A. 1989. *An Encyclopaedia of Indian archaeology*, New Delhi, Munshiram Manoharlal Publishers.
- GOMBRICH, R. 1996. *How Buddhism Began*, London, The Athlone Press.
- GUNAWARDHANA, P. 2009. *Buddhist monasteries towards urbanism in southern Sri Lanka*. , Pannipitiya, Printel (Pvt) Limited.
- HAQUE, E., RAHMAN, S. S. M. & AHSAN, S. M. K. 2001. A Preliminary Report on Wari Bateshwar trial excavation by ICSBA. *Journal of Bengal Art*, 5, 11-40.
- HARTEL, H. 1991. Archaeological Research on Ancient Buddhist Sites. In: BECHERT, H. (ed.) *The Dating of the historical Buddha = Die Datierung des historischen Buddha*. Göttingen: Vandenhoeck & Ruprecht.
- HARTEL, H. 1993. *Excavations at Sonkh: 2500 years of a town in Mathura District*, Berlin, D. Reimer.
- HAWKES, J. & SHIMADA, A. 2009. Approaches to the Study of Buddhist Stupas. In: HAWKES, J. & SHIMADA, A. (eds.) *Buddhist Stupas in South Asia*. Oxford: Oxford University Press.

- HAWKES, J. A. S., A. (ed.) 2009. *Buddhist Stupas in South Asia: Recent Archaeological, Art-Historical and Historic Perspectives*, Oxford: Oxford University Press.
- HEITZMAN, J. 2009. The Urban Context of Early Buddhist Monuments in South Asia. In: HAWKES, J. A. S., A. (ed.) *Buddhist Stupas in South Asia*. Oxford: Oxford University Press.
- HORTON, M. 1991. Primitive Islam and Architecture in East Africa. *Muqarnas*, 8, 103-116.
- HORTON, M. 1996. *Shanga : the archaeology of a Muslim trading community on the coast of East Africa*, London, British Institute in Eastern Africa.
- HOUGHTON HODGSON, B. 1829. Sketch of Buddhism, Derived from the Bauddha Scriptures of Nipál. *Transactions of the Royal Asiatic Society of Great Britain and Ireland*, 2, 222-257.
- HOUGHTON HODGSON, B. 1834. European Speculations on Buddhism. *Journal of the Royal Asiatic Society Bengal*, 382-387.
- HUNTER, W. W. 1896. *Life of Brian Houghton Hodgson, British resident at the court of Nepal, member of the Institute of France; fellow of the Royal society; a vice-president of the Royal Asiatic society, etc.*, London, J.Murray.
- INSOLL, T. 1999. *The Archaeology of Islam*, Oxford, Blackwell
- INSOLL, T. 2001. Archaeology and World Religion. In: INSOLL, T. (ed.) *Archaeology and World Religion*. London: Routledge.
- INSOLL, T. 2004. *Archaeology, Ritual, Religion*, London, Routledge.
- INSOLL, T. 2009. *Special issue: Materiality, belief, ritual: archaeology and material religion*, Oxford, Berg.
- INSOLL, T. (ed.) 2011. *The Oxford handbook of the archaeology of ritual and religion*, Oxford: Oxford University Press.
- IRWIN, J. 1973. 'Asokan' pillars: a reassessment of the evidence. *The Burlington Magazine*, 115, 706-720.
- IRWIN, J. 1985. *Asokan pillars : their mystery and the explanation*, S.l.s.n.
- JAIN, K. C. 1972. *Ancient cities and towns of Rajasthan; a study of culture and civilization*, Delhi, Motilal Banarsidass.
- JOHNSON-ROEHR, S. 2008. The Archaeological Survey of India and Communal Violence in Post-Independence India. *International Journal of Heritage Studies*, 14, 506-523.
- JOSH, B. 2012. Asoka, Historical Discourse, and the Post-Colonial Indian State. In: OLIVELLE, P., LEOSHKO, J. & RAY, H. P. (eds.) *Reimagining Asoka: Memory and History*. New Delhi: Oxford University Press.
- KEAY, J. 1988. *India Discovered*, London, Collins.

- KEJARIWAL, O. P. 1988. *The Asiatic Society of Bengal and the Discovery of India's Past 1784-1838*, New Delhi, Oxford University Press.
- KENOYER, M. J. 2006. New perspectives on the Mauryan and Kushana Periods. In: OLIVELLE, P. (ed.) *Between the Empires: Society in India 300 BCE to 400 CE*. Oxford: Oxford University Press.
- KERN, F. 1956. *Asoka, Kaiser und Missionar*, Bern.
- KING, R. 1999. *Orientalism and Religion: Postcolonial Theory, India and 'The Mystic East'*, London, Routledge.
- KNAPPETT, C., EVANS, T. & RIVERS, R. 2008. Modelling maritime interaction in the Aegean Bronze Age. *Antiquity*, 82.
- KNOX, R. 1984. *Historical Relation of the Island Ceylon in the East Indies*, New Delhi, Navrang Publishers.
- KNOX, R. 2004. *Nineteen Years' Captivity in the Highlands of Ceylon*, New Delhi, Asian Educational Services.
- KUHRT, A. 2001. The Achaemenid Persian Empire (c.550-c.330BCE): continuities, adaptations, transformations. In: ALCOCK, S. E., D'ALTROY, T. N., MORRISON, K. D. & SINOPOLI, C. M. (eds.) *Empires*. Cambridge: Cambridge University Press.
- LAL, B. B. 1955. Excavations at Hastināpura and other explorations [in the upper Gangā and Sutlej basins], 1950-52 : (new light on the dark age between the end of the Harappā culture and the early historical period). *Ancient India*, 10-11, 5-151.
- LAMOTTE, E. 1958. *Histoire du bouddhisme indien : des origines à l'ère Śaka*, Louvain, Publications Universitaires, Institut Orientaliste.
- LATTIMORE, O. 1962. *Studies in Frontier History: Collected papers 1928-1958*, Oxford, Oxford University Press.
- LEGGE, J. 1886. *A record of Buddhistic kingdoms : being an account by the Chinese monk Fâ-Hien of his travels in India and Ceylon, A.D. 399-414, in search of the Buddhist books of discipline. Translated and annotated with a Korean recension of the Chinese text*, Oxford, Oxford Clarendon Press
- LEOSHKO, J. 2012. Asoka and Museums. In: OLIVELLE, P., LEOSHKO, J. & RAY, H. P. (eds.) *Reimagining Asoka: Memory and History* New Delhi: Oxford University Press.
- LONGHURST, A. H. 1936. *The Story of the Stupa*, Colombo, Ceylon Government Press.
- LOPEZ, D. 1995. *Curators of the Buddha : the study of Buddhism under colonialism*, Chicago, University of Chicago Press.
- LOPEZ, D. 2013. *From Stone to Flesh: a Short History of the Buddha*, Chicago, The University of Chicago Press.

- LOPEZ, D. & MCCracken, P. 2014. *In search of the Christian Buddha : How an Asian Sage Became a Medieval Saint*, New York, W.W. Norton & Company.
- LOPEZ, D. S. 1995. Introduction. In: LOPEZ, D. S. (ed.) *Curator of the Buddha*. Chicago: University of Chicago Press.
- MAGEE, P. & PETRIE, C. 2010. West of the Indus – East of the Empire: the Archaeology of the Pre-Achaemenid and Achaemenid Periods in Baluchistan and the North-West Frontier Province, Pakistan. In: CURTIS, J. & SIMPSON, S. J. (eds.) *The World of Achaemenid Persia: History, Art and Society in Iran and the Ancient Near East*. London: I.B. Tauris.
- MANI, B. R. & MISHRA, P. K. 2013. Further Excavations (2012-2013) at Piprahawa, Ganwaria and tola Salargarh, District Siddharth Nagar, Uttar Pradesh. *Puratattva*, 43, 141-148.
- MANI, R. 2008. Excavation Begins at Kaushambi. *The Times of India*.
- MARSHALL, J. H. 1907. Excavations at Sarnath. *Archaeological Survey Report 1907-08*. ASI.
- MARSHALL, J. H. 1911. *Excavations at Bhita*.
- MARSHALL, J. H. 1916. *Indian archaeological policy, 1915, being a resolution issued by the governor general in council on the 22nd October, 1915*, Calcutta, Superintendent Government Printing, India.
- MARSHALL, J. H. 1951. *Taxila: An Illustrated Account of Archaeological Excavations carried out at Taxila*, Cambridge, Cambridge University Press.
- MARSHALL, J. H. 1960. *The Buddhist Art of Gandhara*, Cambridge, Published for the Dept. of Archaeology in Pakistan at the University Press.
- MARSHALL, J. H., MAJUMDAR, N. G. & FOUCHER, A. 1940. *The Monuments of Sanchi*, London, Probsthain.
- MCCLISH, M. 2012. Is the *Arthashastra* a Mauryan Document? In: OLIVELLE, P., RAY, H. P. & LEOSHKO, J. (eds.) *Reimagining Asoka: Memory and History*. New Delhi: Oxford University Press.
- MENON, J. 2008. Archaeology of Early Historic South Asia: A Review. In: SENGUPTA, G. & CHAKRABORTY, S. (eds.) *Archaeology of Early Historic South Asia*. New Delhi: Pragati Publications.
- MEUCCI, C. 2013. Strengthening conservation and management of Lumbini, the birthplace of Lord Buddha, World Heritage Property. Conservation of Archaeological Remains, Final Report. Kathmandu, Nepal: UNESCO.
- MISHRA, T. N. 1978. *The Location of Kapilavastu and Archaeological Excavations 1967-1972*, Kathmandu, Sahayogi Press.
- MISHRA, T. N. 1996. The Archaeological Activities in Lumbini. *Ancient Nepal*, 139, 36-48.
- MITRA, D. 1971. *Buddhist Monuments*, Calcutta, Sahitya Samsad.

- MITRA, D. 1972. *Excavations at Tilaurakot and Kodan and Explorations in the Nepalese Terai*, Calcutta, The Department of Archaeology, Government of India.
- MORRISON, K., D. 1997. Commerce and Culture in South Asia: Perspectives from Archaeology and History *Annual Review of Anthropology*, 26, 87-108.
- MORRISON, K. D. 1995. Trade, Urbanism, and Agricultural Expansion: Buddhist Monastic Institutions and the State in the Early Historic Western Deccan. *World Archaeology*, 27, 203-221.
- MORRISON, K. D. 2001. Sources, Approaches, Definitions. In: ALCOCK, S. E. E. A. (ed.) *Empires*. Cambridge: Cambridge University Press.
- MOUHOT, H. 1989[1864]. *Travels in Siam, Cambodia, and Laos, 1858-1860*, New York, Oxford University Press.
- MUJUMDAR, G. G. 1994. Colour Technology of Ancient Indian Pottery, with Special, Reference to Painted-Grey-Ware. In: GAUR, R. C. (ed.) *Painted Grey Ware: Proceedings of Seminar on Archaeology held at the Aligarh Muslim University, Aligarh*. Jaipur: Publication Scheme.
- MUKHERJEE, S. N. 1968. *Sir William Jones: A study in the Eighteenth-century British Attitudes to India*, Cambridge, Cambridge University Press.
- MUKHERJI, P. C. 1901. *A report on a tour of exploration of the antiquities in the Tarai, Nepal, the region of Kapilavastu, during February and March, 1889*.
- MUKHOPADHYAY, S. K. 1972. Terracottas from Bhita. *Artibus Asiae*, 34, 71-94.
- MURTHY, H. V. S. 1958. Was Asoka a Buddhist? *East and West*, 9, 230-232.
- NARAIN, A. K., ROY, T. N., SINGH, P. & AGRAWALA, P. K. 1976. *Excavations at Rajghat, 1957-1958, 1960-1965*, Varanasi, Dept. of Ancient Indian History, Culture and Archaeology, Banaras Hindu University.
- NATH, A. 1998. *Further Excavations at Pauni*, New Delhi, Archaeological Survey of India
- NEELIS, J. 2011. *Early Buddhist Transmission and Trade Networks: Mobility and Exchange within and Beyond the Northwestern Borderlands of South Asia*, Leiden, Brill.
- NOCI, F. A. M., R AND FACCENNA, D. 1997. *Saidu Sharif I (Swat, Pakistan): the Graveyard*, Rome, ISIAO.
- OLIVELLE, P., LEOSHKO, J. & RAY, H. P. 2012. Reimagining Asoka: Introduction. In: OLIVELLE, P., LEOSHKO, J. & RAY, H. P. (eds.) *Reimagining Asoka: Memory and History*. New Delhi: Oxford University Press.
- ORTON, C., TYERS, P. & VINCE, A. G. 1993. *Pottery in Archaeology*, Cambridge, Cambridge University Press.

- PADDAYYA, K. 2008. Is Archaeology a Reliable Approach for Studying the Historical Period of India. In: SENGUPTA, G. & CHAKRABORTY, S. (eds.) *Archaeology of Early Historic South Asia*. New Delhi: Pragati Publications.
- PANDEY, C. B. 1982. *Mauryan Art*, Delhi, Bharatiya Vidya Prakashan.
- PARANAVITANA, S. 1970. *Inscriptions of Ceylon, Volume 1.*, Colombo, Archaeological Survey Department.
- PEIRIS, W. 1973. *The Western Contribution to Buddhism*, Delhi, Motilal Banarsidass.
- PIEPER, W. 1991. Arboreal Art and Architecture in India. In: VATSYAYAN, K. (ed.) *Concepts of Space: ancient and modern*. New Delhi: Indira Gandhi National Centre for the Arts.
- PIGGOT, S. 1943. The Earliest Buddhist Shrines. *Antiquity*, XVII, 1-10.
- RANA, D. S. 1999. The Role of General Khadga Shumsher Rana in the Discovery of Lumbini. *An Annual Publication of the International Buddhist Society of Lumbini, Nepal*, 5, 12-14.
- RANA, G. K. S. 2000. Buddhist Archaeology in the Nepal Terai. *Lumbini: An Annual Publications of the international Buddhist Society, Lumbini, Nepal*, 6, 32-36.
- RAY, H. P. 1989. Early Maritime Contacts between South and Southeast Asia. *Journal of Southeast Asian Studies*, 20, 42-54.
- RAY, H. P. 1994. Kanheri: the Archaeology of an Early Buddhist Pilgrimage Centre in Western India. *World Archaeology*, 26.
- RAY, H. P. 1994. *The Winds of Change: Buddhism and the Maritime Links of Early South Asia*, Oxford, Oxford University Press.
- RAY, H. P. 2008. *Colonial Archaeology: the Legacy of Sir Mortimer Wheeler*, New Delhi, Oxford University Press.
- RAY, H. P. (ed.) 2009. *Archaeology and Text: the Temple in South Asia*, New Delhi: Oxford University Press.
- RAY, H. P. 2009. The Archaeology of Stupas: Constructing Buddhist Identity in the Colonial Period. In: HAWKES, J. A. S., A. (ed.) *Buddhist Stupas in South Asia*. Oxford: Oxford University Press.
- RAY, H. P. 2010. The Apsidal Shrine in Early Hinduism: Origins, Cultic Affiliation, Patronage. *World Archaeology*, 36, 343-359.
- RAY, H. P. 2012. Archaeology and Asoka: Defining the Empire. In: OLIVELLE, P., LEOSHKO, J. & RAY, H. P. (eds.) *Reimagining Asoka: Memory and History*. New Delhi: Oxford University Press.
- RAY, H. P. A. S., C.M. (ed.) 2004. *Archaeology as History in Early South Asia*, New Delhi: Aryan Books International.
- RAYCHAUDHURI, H. 1923. *Political History of Ancient India from the accession of Parikshit to the extinction of the Gupta dynasty*, Calcutta, University of Calcutta.

- REKAVANDI, H. O., SAUER, E. W., WILKINSON, T. J., ALIABBASI, G., PRIESTMAN, S., TAMAK, E. S., AINSLIE, R., MAHMOUDI, M., GALIATSATOS, N., ROUSTAI, K., VAN RENSBURG, J. J., ERSHADI, M., MACDONALD, E., FATTAHI, M., OATLEY, C., SHABANI, B., RATCLIFFE, J. & USHER-WILSON, L. S. 2008. Sasanian Walls, Hinterland Fortresses and Abandoned Ancient Irrigated Landscapes: The 2007 season on the Great Wall of Gorgan and the Wall of Tammishe. *Iran*, 46, 151-178.
- RIJAL, K. 1979. *Archaeological Remains of Kapilavastu, Lumbini and Devadaha*, Kathmandu, Educational Enterprises.
- RIJAL, K. 1996. *100 Years of Archaeological Research in Lumbini, Kapilavastu and Devadaha*, Kathmandu, S.K. International Publishing House.
- ROWLAND, B. 1967. *The Art and Architecture of India. Buddhist/Hindu/Jain*, Harmondsworth, Penguin Books.
- ROY, S. 1953. Indian Archaeology from Jones to Marshall (1784-1902). *Ancient India*, 9, 4-28.
- ROY, T. N. 1983. *The Ganges Civilization: A Critical Archaeological Study of the Painted Grey Ware and Northern Black Polished Ware Periods of the Ganga Plains of India*, New Delhi, Ramanand Vidya Bhawan.
- ROY, T. N. 1994. The Pre-Northern Black Polished Ware Deposit. In: GAUR, R. C. (ed.) *Painted Grey Ware: Proceedings of Seminar on Archaeology held at the Aligarh Muslim University, Aligarh*. Jaipur: Publication Scheme.
- SAHNI, D. R. 1927. Kausambi. *Journal of the Royal Asiatic Society of Great Britain and Ireland*, 4, 689-698.
- SAHNI, D. R. 1937. *Archaeological Remains and Excavations at Bairat*, Jaipur.
- SAUER, E., REKAVANDI, H. O., WILKINSON, T. J. & NOKANDEH, J. 2013. *Persia's Imperial Power In Late Antiquity: Sasanian Frontier Walls, Forts and Landscapes Of Northern Iran*, Oxford, Oxbow.
- SCHOPEN, G. 1991. Archaeology and Protestant Presuppositions in the Study of Indian Buddhism. *History of Religions*, 31, 1-23.
- SCHOPEN, G. 1997. *Bones, stones, and Buddhist monks : collected papers on the archaeology, epigraphy, and texts of monastic Buddhism in India*, Honolulu, University of Hawaii Press.
- SHARIF, M. 1969. Excavations at the Bhir Mound, Taxila. *Ancient Pakistan*, 6, 6-99.
- SHARMA, G. R. 1960. *The excavations at Kauśāmbī (1957-59) The defences and the Śyenaciti of the Purusamedha*, Allahabad, Allahabad [Dept. of Ancient History, Culture & Archaeology, University of Allahabad].
- SHARMA, G. R. 1969. *Excavations at Kauśāmbī, 1949-50*, Delhi, Manager of Publications.
- SHARMIN, D. & OKADA, F. 2011. Surface Coating Technique of Northern Black Polished Ware by the Microscopic Analysis. *Ancient Asia*, 3, 49-65.

- SHAW, J. 2007. *Buddhist Landscapes in Central India: Sanchi Hill and Archaeologies of Religious and Social Change*, London, British Academy.
- SHAW, J. 2009. Stupas, Monasteries and Relics in the Landscape: Typological, Spatial and Temporal Patterns in South Asia. In: HAWKES, J. A. S., A. (ed.) *Buddhist Stupas in South Asia*. Oxford: Oxford University Press.
- SHAW, J. 2013. Archaeologies of Buddhist Propagation in ancient India: 'ritual' and 'practical' models of religious change. *World Archaeology*, 45, 83-108.
- SINGH, P. 1994. *Excavations at Narhan, 1984-89*, Delhi, Varanasi : Dept. of Ancient Indian History, Culture & Archaeology, Banaras Hindu University & B.R. Pub. Corp.
- SINGH, P. 2010. *Archaeology of the Ganga Plain: cultural-historical dimensions*, New Delhi, Aryan Books International.
- SINGH, P. S., A.K. 2004. *The Archaeology of the Middle Ganga Plain (Excavations at Agiabir)*, New Delhi, Aryan Books International
- SINGH, U. 2008. A History of Ancient and Early Medieval India. *India*, 260.
- SINHA, B. P. & ROY, S., R. 1969. *Vaisali Excavations, 1958-1962*, Patna, Directorate of Archaeology and Museums, Bihar.
- SINHA, K. K. 1973. Stratigraphy and Chronology of Early Kausambi: a reappraisal. In: AGRAWAL, D. P. & GHOSH, A. (eds.) *Radiocarbon and Indian Archaeology*. Bombay: Tata Institute of Fundamental Research.
- SINOPOLI, C. A. M., K.D. 2007. *The Vijayanagara Metropolitan Survey*, Ann Arbor, The Regents of the University of Michigan, Museum of Anthropology.
- SINOPOLI, C. M. 2001. On the Edge of Empire: form and substance in the Satavahana dynasty. In: ALCOCK, S. E., D'ALTROY, T. N., MORRISON, K. D. & SINOPOLI, C. M. (eds.) *Empires*. Cambridge: Cambridge University Press.
- SIRCAR, D. C. 1979. *Asokan Studies*, Calcutta, Indian Museum.
- SMITH, M., E. 2001. The Aztec Empire and the Mesoamerican world system. In: ALCOCK, S. E., D'ALTROY, T. N., MORRISON, K. D. & SINOPOLI, C. M. (eds.) *Empires*. Cambridge: Cambridge University Press.
- SMITH, M. 2006. The Archaeology of South Asian Cities. *Journal of Archaeological Research*, 14, 97-142.
- SMITH, M. 2007. Territories, corridors and networks: A biological model for the premodern state. *Complexity*, 12, 28-35.
- SMITH, M. L. 2005. Networks, Territories, and the Cartography of Ancient States. *Annals of the Association of American Geographers*, 95.
- SMITH, V. A. 1904. *Asoka, the Buddhist Emperor of India*, Delhi, S.Chand.

- SRIVASTAVA, K. M. 1986. *Buddha's Relics from Kapilavastu*, Delhi, Agam Kala Prakashan.
- SRIVASTAVA, K. M. 1986. *Discovery of Kapilavastu*, New Delhi, Books & Books.
- SRIVASTAVA, K. M. 1996. *Excavations at Piprahwa and Ganwaria*, New Delhi, Archaeological Survey of India.
- SUBEDI, A. 1999. *Ekai Kawaguchi: the Trespassing Insider*, Kathmandu, Mandala Book Point.
- SUGHANDI, N. 2003. Context, Content, and Composition: Questions of Intended Meaning and the Asokan Edicts. *Asian Perspectives*, 42, 224-246.
- TAMBAH, S. 1976. *World conqueror and world renouncer : a study of Buddhism and polity in Thailand against a historical background*, Cambridge, Cambridge University Press.
- TANGE, K. 1981. Architectural Design for the Lumbini Garden Phase III, Stage II. Report. New York: United Nations.
- THAPAR, R. 1960. Asoka and Buddhism. *Past and Present*, 18, 43-51.
- THAPAR, R. 1997. *Asoka and the Decline of the Mauryas*, New Delhi, Oxford University Press.
- THAPAR, R. 2000. *Cultural Pasts: Essays on Early Indian History*, New Delhi, Oxford University Press.
- THAPAR, R. 2012. Asoka: a Retrospective. In: OLIVELLE, P., LEOSHO, J. & RAY, H. P. (eds.) *Reimagining Asoka: Memory and History*. New Delhi: Oxford University Press.
- TRAINOR, K. 1997. *Relics, ritual, and representation in Buddhism : rematerializing the Sri Lankan Theravāda tradition*, Cambridge, Cambridge University Press.
- TRAUTMANN, T. 1971. *Kauṭilya and the Arthaśāstra; a statistical investigation of the authorship and evolution of the text*, Leiden, Brill.
- TRAUTMANN, T. R. A. S., C.M. 2002. In the Beginning was the Word: Excavating the Relations between History and Archaeology in South Asia. *Journal of the Economic and Social History of the Orient*, 45, 492-523.
- TRIPATHI, V. 2008. Genesis and Spread of Urban Process in the Gangetic Plain. In: SENGUPTA, G. & CHAKRABORTY, S. (eds.) *Archaeology of Early Historic South Asia*. New Delhi: Pragati Publications.
- TUCCI, G. 1977. On Swat. The Dards and Connected Problems *East and West*, XXVII, 9-85, 94-103.
- TURNOUR, G. 1837. An Examination of the Pali Buddhistical Annals No.2. *Journal of the Asiatic Society of Bengal*, VI, 713-736.
- UESAKA, S. 2001. *Archaeological Research at Maya Devi Temple*, Tokyo, Japanese Buddhist Federation.

- VAN DOMMELEN, P. 2011. Postcolonial Archaeologies Between Discourse and Practice. *World Archaeology*, 43, 1-6.
- VARMA, V. P. 1971. *Early Buddhism and its Origins*, New Delhi, Munshiram Manoharlal.
- VERARDI, G. 1998. Excavations at Gotihawa. A Note on the Results Obtained During the First Excavation Campaign in Winter 1994-1995. *Ancient Nepal*, 140, 85-106.
- VERARDI, G. 2007. *Excavations at Gotihawa and Pipri, Kapilabastu District, Nepal*, Rome, ISIAO.
- WARRAQ, I. 2007. *Defending the West: a Critique of Edward Said's Orientalism*, Amherst, New York, Prometheus Books.
- WATERHOUSE, D. 2004. *Origins of Himalayan Studies : Brian Houghton Hodgson in Nepal and Darjeeling.*, London, Routledge.
- WATTERS, T. 1973. *On Yuan Chwang's Travels in India*, New Delhi, Munshiram Manoharlal.
- WEBER, M. 1963. *The Sociology of Religion*, Boston, Beacon Press.
- WEISE 2008. Lumbini, the Birthplace of Lord Buddha, World heritage Site Integrated Management Plan DRAFT. Kathmandu: UNESCO.
- WEISE, K. & SHRESTHA, M. 2008. Defining the World Heritage Site--Identification of 'the place to be managed'. Kathmandu: UNESCO.
- WELBON, G. R. 1968. *The Buddhist Nirvana and its Western Interpreters*, Chicago, The University of Chicago Press.
- WELLS, H. G. 1920. *The outline of history; being a plain history of life and mankind*, New York, The Macmillan Co.
- WHEELER, M. 1963. *Early India and Pakistan*, London, Thames and Hudson.
- WHITE, D. G. 2006. Digging Wells While Houses Burn? Writing Histories of Hinduism in a Time of Identity Politics. *History and Theory*, 45, 128.
- WILLIS, J. 1985. Nuns and Benefactresses: The Role of Women in the Development of Buddhism. In: HADDAD, Y. Y. A. F., E.B. (ed.) *Women, Religion and Social Change*. Albany: State University of New York.
- WILLIS, M. 2009. Relics of the Buddha: Body, Essence, Text. In: HAWKES, J. A. S., A. (ed.) *Buddhist Stupas in South Asia*. Oxford: Oxford University Press.
- YOFFEE, N. 2004. *Myths of the archaic state: evolution of the earliest cities, states and civilizations*, New York, Cambridge University Press.